

Article

Exploring Customer Perceptions of Business Model Innovation in Family Economic Groups: Evidence from Ecuador

Ana Belén Tulcanaza-Prieto ^{1,*}, Alexandra Cortez-Ordoñez ², Jairo Rivera ³ and Chang Won Lee ⁴

¹ Grupo de Investigación Negocios, Economía, Organizaciones, y Sociedad (NEOS), Escuela de Negocios, Universidad de Las Américas (UDLA), Quito 170124, Ecuador

² ViRVIG Group, Department of Computer Science, Universidad Politècnica de Catalunya, 08034 Barcelona, Spain; alexandra.cortez@upc.edu

³ Área Académica de Gestión, Universidad Andina Simón Bolívar, Quito 170525, Ecuador; jairo.rivera@uasb.edu.ec

⁴ School of Business, Hanyang University, Seoul 04763, Republic of Korea; leecw@hanyang.ac.kr

* Correspondence: ana.tulcanaza@udla.edu.ec

Abstract

This study investigates the determinants of customers' perception of business model innovation (BMI) and its impact on customer satisfaction (CS), customer loyalty (CL), and firm sustainability (FS) within Ecuadorian family economic groups (EFEGs). It also examines the moderating role of perceived BMI in the relationships between CS, CL, and FS. Data were collected through an online survey yielding 342 valid responses, using a structured instrument that included socio-demographic variables, perceived EFEG characteristics, and nine validated constructs. Reliability and validity were corroborated through exploratory and confirmatory factor analyses, while structural equation modeling (SEM) and multiple regression analyses were employed to test the proposed relationships. The results reveal that socially responsible consumption (SRC), technological/digital customer skills (TCS), value creation innovativeness (VCrI), value proposition innovativeness (VPI), and value capture innovativeness (VCI) significantly influence customers' perception of BMI. In turn, BMI positively influences CS, CL, and FS, and moderates the relationships between CS and FS, and CL and FS, though it does not significantly moderate the CS–CL relationship. These findings are consistent with previous research on European family firms, emphasizing the relevance of innovation capabilities, entrepreneurial orientation, and socioemotional wealth in enhancing adaptability and performance in family-owned businesses. This study contributes novel empirical evidence on BMI in the context of an emerging economy dominated by family firms. It underscores BMI as a dynamic capability crucial for fostering customer engagement, improving competitiveness, and ensuring long-term sustainability. Managerial implications suggest that EFEG managers should prioritize digital integration, service innovation, and transparency to strengthen customer trust and loyalty. Future research should broaden the scope to include other Latin American contexts, integrate internal organizational perspectives, and explore intergenerational dynamics and digital transformation processes to deepen understanding of BMI in family business ecosystems.

Keywords: family business; customer experience; dynamic capabilities; technological competence; innovation adoption; emerging economies



Academic Editor: Darjan Karabašević

Received: 17 June 2025

Revised: 2 August 2025

Accepted: 28 September 2025

Published: 30 September 2025

Citation: Tulcanaza-Prieto, A.B.; Cortez-Ordoñez, A.; Rivera, J.; Lee, C.W. Exploring Customer Perceptions of Business Model Innovation in Family Economic Groups: Evidence from Ecuador. *Sustainability* **2025**, *17*, 8793. <https://doi.org/10.3390/su17198793>

Copyright: © 2025 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

Economic Groups (EGs), defined as networks of firms controlled by a central family or corporate entity, have emerged as dominant organizational forms, particularly in emerging markets. Within this framework, Family Economic Groups (FEGs), characterized by strong familial control over diversified business operations, play a pivotal role in shaping the economic and social fabric of many nations. Ecuadorian Family Economic Groups (EFEGs) exemplify this model, with a small number of powerful family-owned conglomerates exerting significant influence across multiple sectors, including finance, retail, energy, and services [1,2]. These firms operate in an increasingly dynamic environment shaped by digital transformation, rising consumer expectations, and growing demands for transparency and accountability. To sustain competitive advantage and long-term viability, EFEGs must adopt strategic mechanisms that enhance adaptability, innovation capacity, and market relevance in response to these evolving challenges.

According to [2,3], over 80% of Ecuadorian firms across small, medium, and large classifications are family-owned, with total equity estimated at USD 26 billion. This represents approximately 51% of the country's GDP and accounts for the employment of around 1.6 million people. Quantitative analyses show that EFEGs are concentrated in key provinces such as Guayas, Pichincha, Manabí, Azuay, and El Oro. Sectorally, they are most prominent in financial and insurance services, wholesale and retail trade, manufacturing, agriculture, and other service industries. From a qualitative standpoint, EFEGs exhibit formal governance mechanisms with multigenerational structures, including family councils and established succession protocols. These practices aim to preserve organizational resilience, ensure continuity, reduce intergenerational conflict, and maintain long-term stability.

Business Model Innovation (BMI), defined as the reconfiguration of a firm's value creation, delivery, and capture mechanisms [4–6], is increasingly recognized as a strategic imperative for firms seeking resilience amid technological disruption and evolving stakeholder demands. In this context, the integration of emerging technologies such as artificial intelligence (AI), enhanced customer engagement strategies, and alignment with Global Reporting Initiative (GRI) standards has become central to transformation efforts in family firms. However, BMI adoption is not uniform across these firms; it is heterogeneous, shaped by organizational structure, context, and capacity for change [7,8].

Despite its importance, the role of BMI in shaping customer-related outcomes within EFEGs remains underexplored. Prior studies have examined BMI in developed economies and in standalone family businesses, but there is a lack of empirical research on large, diversified family conglomerates in emerging markets like Ecuador. Additionally, limited attention has been paid to how customers perceive these innovations and how such perceptions affect key outcomes such as customer satisfaction (CS), customer loyalty (CL), and firm sustainability (FS). This study addresses this gap by investigating the determinants of customers' perceptions of BMI and analyzing its direct and moderating effects on CS, CL, and FS in the Ecuadorian context. The customer base of EFEGs is primarily composed of urban professionals residing in the same major provinces where these conglomerates operate. Quantitative data show that these customers engage in relationship-based interaction models characterized by high levels of trust, largely due to longstanding brand reputation and perceived continuity. Qualitatively, customers express appreciation for business attributes such as authenticity, personalized service, and consistent quality, traits often less present in larger non-family corporations [9,10].

The study incorporates key constructs representing different dimensions of BMI. Socially Responsible Consumption (SRC) captures customers' evaluations of a firm's ethical, environmental, and community-oriented behaviors, in alignment with GRI values [11,12].

Technological/Digital Customer Skills (TCS) reflect users' ability to interact with digital tools and platforms, increasingly crucial in service delivery. Innovation is further analyzed through three interrelated dimensions [13–15]: value creation innovativeness (VCrI), which assesses innovation in product or service development; value proposition innovativeness (VPI), which evaluates the uniqueness and relevance of the firm's offerings; and value capture innovativeness (VCI), which reflects the firm's ability to derive revenue from new solutions.

The objectives of this study are threefold: (i) to identify and validate the determinants of customers' perceptions of BMI within EFEGs, (ii) to evaluate the relationship between BMI and each of CS, CL, and FS (corresponding to hypotheses H2, H3, H4, respectively), as well as the interrelationships among CS, CL, and FS (corresponding to H5, H6, and H7, respectively), and (iii) to examine the moderating role of perceived BMI in the CS–CL, CS–FS, and CL–FS relationships. This research adopts a rigorous quantitative approach. A structured survey was administered to a valid sample of 342 customers across the ten most representative EFEGs, including both financial and non-financial institutions. The data were analyzed using exploratory factor analysis (EFA) to identify latent constructs and assess data adequacy, followed by confirmatory factor analysis (CFA) to validate the measurement model. Structural equation model (SEM) was then applied to test the hypothesized relationships and examine the moderating role of BMI in the links between CS, CL, and FS.

The structure of the article is as follows: Section 2 provides a literature review on determinants of BMI and its association with CS, CL, and FS. Section 3 outlines the research methodology. Section 4 presents empirical findings. Section 5 offers a discussion of the results. Finally, Section 6 concludes the article, highlighting key findings and recommendations for future research.

2. Literature Review and Hypotheses Development

2.1. Business Model Innovation

The concept of BMI is multifaceted and has been interpreted through diverse theoretical perspectives. On one hand, some definitions adopt a broad systems-based view, conceptualizing BMI as an activity system that serves as the level of analysis and emphasizes the mechanisms through which value is created [16]. On the other hand, BMI has also been examined at a more granular level, focusing on specific components of the business model, such as the “who,” “what,” “when,” “why,” “where,” “how,” and “how much”, to explain how firms innovate across various dimensions of their operations [17]. In both approaches, BMI is not seen as a mere technological upgrade [18], but rather as a strategic and essential process [19], involving the reconfiguration of a firm's value creation mechanisms or even a complete reinvention of its business model [4].

Broadly defined, BMI refers to the design, transformation, or reinvention of a firm's business model to create, deliver, and capture value in novel ways [20]. This transformation often includes modifications to value propositions, customer segments, revenue models, and supply chain structures, typically in response to technological developments and dynamic market conditions. Digital technologies and platforms play a central role in enabling the development of new, scalable, and customer-centric business models that enhance competitiveness [21]. BMI increasingly relies on innovations such as digital platforms, the Internet of Things (IoT), AI, and big data analytics to deliver agile, personalized, and efficient solutions [22,23].

Simultaneously, a notable shift in consumer behavior toward environmentally and socially responsible consumption has prompted firms to integrate sustainability and ethical considerations into their business models. Aligning business strategies with these

values has become essential not only for long-term competitiveness but also for fulfilling corporate social responsibility (CSR) goals. Companies are encouraged to leverage internal assets, such as leadership, corporate culture, and dynamic capabilities, to institutionalize these sustainability values within their organizational DNA [24]. Sustainability-oriented business models not only contribute to reducing environmental and social harm, but also create long-term advantages, both financial and non-financial, by strengthening legitimacy, reputation, and consumer engagement [25,26].

SRC, guided by prosocial values and ethical norms, has become an increasingly influential factor in shaping consumer expectations of corporate behavior [27]. While SRC is partly influenced by socio-economic factors and personal identity, it also encompasses consumer demands for eco-friendly products, transparent supply chains, fair trade, and socially conscious innovations [28–30]. Consumers who identify with SRC view their purchasing decisions as opportunities to drive positive environmental and social change. Accordingly, they are more inclined to support firms that actively demonstrate commitment to these ideals, suggesting that consumer perceptions of innovation are driven by both technological advancement and moral alignment [12].

Thus, the relationship between BMI and SRC can be framed through the lens of customer value co-creation. Increasingly, firms are redesigning their business models to reflect sustainability-driven motivations, such as lowering carbon emissions, adopting circular economy principles, ensuring supply chain transparency, and embedding ethical innovation practices into core operations [29,31,32]. When aligned with these values, BMI strengthens competitive positioning, enhances brand perception, and builds trust with socially conscious customers [26,33].

Based on this discussion, we propose the following hypothesis:

H1a. *Socially responsible consumption influences customers' perception of business model innovation.*

The rise of digital platforms and e-commerce has significantly increased consumer access to information about corporate practices, enabling more informed and socially responsible purchasing decisions [34]. This digital empowerment has occurred in parallel with the evolution of TCS, defined as individuals' ability to interact with, utilize, and derive value from digital technologies, services, and platforms. As firms increasingly deliver personalized and data-driven experiences, TCS has emerged as a critical determinant of consumer behavior with shaping expectations, engagement patterns, and loyalty [35]. A central element of TCS is digital literacy, which determines how effectively consumers interact with digital interfaces and how readily they adopt innovative products and services. This creates a feedback loop: firms rely on digitally competent users to test, refine, and co-create effective BMI strategies [36]. Therefore, BMI is driven not only by technological capabilities but also by the digital sophistication of end-users.

Empirical studies support a positive relationship between TCS and BMI. Digitally literate consumers increasingly expect seamless, personalized, and omnichannel experiences, prompting firms to embed capabilities such as automation, AI-powered services, and predictive analytics into their business models [37,38]. In response, firms have redesigned customer interaction channels, integrating tools such as chatbots, virtual assistants, and AI-driven service interfaces, which have become core components of digital BMI strategies [39]. TCS also plays a central role in how firms capture value. Many businesses are shifting toward platform-based and subscription-driven models, which depend on sustained customer interaction with digital ecosystems. These models enable continuous data collection and monetization, allowing companies to offer insight-driven, value-added services. However, the effectiveness of these models depends on customers' ability to

understand, navigate, and trust digital environments, reinforcing the positive influence of TCS on BMI [40].

In sum, the relationship between TCS and BMI is mutually reinforcing. As digital environments evolve, customer digital proficiency becomes an increasingly powerful force shaping business innovation strategies. Firms that align their models with the digital capabilities of their customers are better positioned to succeed in a rapidly transforming market. Based on this discussion, we propose the following hypothesis:

H1b. *Technological/digital customer skills influences customers' perception of business model innovation.*

VCrI refers to a firm's capability to deliver novel and impactful solutions that meet evolving customer needs and foster long-term relationships [41]. It involves the continuous improvement of products, services, and internal processes, anchoring the firm's capacity to differentiate itself in competitive markets through innovation-driven strategies [42].

Existing literature confirms a strong positive relationship between BMI and VCrI. Customers who perceive a firm's offerings as innovative and relevant are more likely to demonstrate higher levels of satisfaction, loyalty, and engagement, thereby reinforcing the firm's strategic positioning [38]. Often, perceived innovativeness is associated with technological sophistication and functional enhancement, positioning the firm as a leader within its industry. This, in turn, encourages customer advocacy and deeper engagement [40]. Furthermore, customer participation in the co-creation of innovation through feedback, collaborative development, or direct interaction, which ensures that innovations reflect not only technological advancements but also customer expectations and values [43]. Trust, transparency, and a customer-centric approach to innovation enhance the credibility and perceived authenticity of BMI. As firms adopt these strategies, customer perceptions of innovativeness improve, bolstering brand affinity, customer confidence, and long-term competitiveness. Based on this discussion, we propose the following hypothesis:

H1c. *Value creation innovativeness influences customers' perception of business model innovation.*

VPI reflects a firm's ability to creatively differentiate itself in the market by addressing new or previously unmet customer needs. This may include the development of novel products and services, increased personalization, or the delivery of enhanced and seamless customer experiences [44,45]. VPI often necessitates fundamental changes in how value is created, delivered, and captured, making it a core driver of BMI strategies [46].

Empirical evidence shows that customers react positively to innovative value propositions, especially when such innovations address quality improvements, emerging needs, and the use of advanced technologies [47,48]. The effectiveness of BMI is shaped in large part by customer expectations and perceptions. Firms that align their value propositions with dynamic consumer demands are more likely to achieve higher CS and brand loyalty. Moreover, this alignment improves both financial and non-financial outcomes, strengthening the firm's market relevance and competitive positioning [49]. Based on this foundation, we propose the following hypothesis:

H1d. *Value proposition innovativeness influences customers' perception of business model innovation.*

VCI refers to a firm's strategic capability to extract value, such as profits, revenue, and competitive advantage, by adapting its revenue generation mechanisms to changing market conditions and technological developments [14]. This often includes innovating pricing strategies, forming strategic alliances, and managing intellectual property to ensure sustainable growth and long-term market relevance [4].

Given that BMI inherently involves redesigning value creation and delivery processes, including revenue models, customer engagement strategies, and distribution channels, the relationship between VCI and BMI is reciprocal and mutually reinforcing. On one hand, innovative value capture mechanisms provide the necessary resources and strategic incentives for firms to pursue and implement BMI. On the other hand, as business models evolve in response to external pressures, they often require a recalibration of value capture strategies to remain competitive and relevant to customer expectations and technological trends [13]. Recent studies also highlight the growing role of sustainability in shaping VCI. Firms committed to sustainable business practices are increasingly adopting alternative revenue models, such as carbon credits, pay-per-use schemes, and circular economy approaches, to align value extraction with ethical, environmental, and social objectives [15]. These transformations show that VCI not only supports the renewal of business models but also enhances alignment with the values of socially conscious consumers, ultimately strengthening brand image and market positioning. Based on this discussion, we propose the following hypothesis:

H1e. *Value capture innovativeness influences customers' perception of business model innovation.*

The individual hypotheses (H1a–H1e) illustrate how each specific dimension whether ethical, technological, or strategic independently contributes to customers' perception of BMI. Each factor captures a distinct aspect of consumer value orientation or firm-level innovation capacity, influencing how customers evaluate the novelty, relevance, and strategic value of a firm's business model. In practice, however, these factors rarely function in isolation. Customer perceptions of BMI are shaped by a multidimensional interplay of socially grounded values (e.g., SRC), digital competencies (e.g., TCS), and innovation strategies (e.g., VCrI, VPI, and VCI). This integrated view reflects the reality that consumers form holistic judgments of firms based on the simultaneous expression of ethical alignment, technological sophistication, and the perceived innovativeness of value delivery. Therefore, synthesizing the theoretical and empirical evidence from all BMI components, we propose the following comprehensive hypothesis:

H1. *Socially responsible consumption (SRC), Technological/digital customer skills (TCS), Value creation innovativeness (VCrI), Value proposition innovativeness (VPI), and Value capture innovativeness (VCI) collectively influence customers' perception of business model innovation (BMI).*

2.2. Customer Satisfaction

CS is a critical outcome of a firm's marketing efforts [50], strongly associated with the fulfillment of customer expectations. It significantly influences purchase intentions, CL, and long-term business success [51–53]. Unlike service quality, which is primarily a cognitive evaluation of specific service attributes, CS encompasses both rational and emotional assessments of the overall customer experience [54]. High levels of satisfaction often signal successful innovation, particularly when such innovation is driven by customer-centric value creation.

In this context, BMI plays a pivotal role in shaping customer perceptions and, consequently, satisfaction. Firms that continuously innovate in products, services, and operational processes are better positioned to meet evolving customer needs, resulting in enhanced satisfaction [55]. Innovations in business processes, such as streamlined operations, personalized services, and distinctive value propositions, positively influence customer perceptions and reinforce satisfaction [56]. Empirical evidence supports this relationship. Studies in the Pakistani mobile telecommunications sector [57] and the Jordanian banking industry [58] demonstrate that BMI-led innovations in service delivery and customer

engagement significantly improve CS and overall business performance. These findings underscore that customers' perception of a firm's innovativeness is a key determinant of their satisfaction levels. Based on this evidence, we propose the following hypothesis:

H2. *Customers' perception of business model innovation positively influences customer satisfaction.*

2.3. Customer Loyalty

CL is an intangible yet invaluable asset that serves as a critical source of competitive advantage for organizations. It encompasses two primary dimensions: behavioral loyalty, reflected in repeated purchases, and attitudinal loyalty, which includes emotional attachment, brand preference, and advocacy [50,59]. Both dimensions contribute significantly to long-term business success and a strong brand image. CL is shaped by multiple factors, including CS, perceived value, service quality, and the overall customer experience [60].

In today's dynamic business environment, evolving customer expectations compel firms to innovate continuously. BMI has emerged as a strategic response to these shifts, enabling firms to enhance their value propositions and maintain competitiveness. However, the success of BMI in fostering loyalty depends largely on its alignment with customer needs and perceived value [61]. Innovations that enhance transparency, reliability, and personalization are particularly effective, as they build trust, an essential foundation for loyalty [32,62,63].

When customers perceive that a firm is innovating to address their preferences and deliver novel experiences, they are more likely to develop lasting emotional bonds with the brand. Empirical evidence supports this relationship: studies across different industries and countries indicate that perceived BMI positively influences brand loyalty by enhancing perceived value, reliability, and customer trust [64,65]. Based on this evidence, we propose the following hypothesis:

H3. *Customers' perception of business model innovation positively influences customer loyalty.*

2.4. Firm Sustainability

FS extends beyond corporate growth and profitability to encompass broader societal goals, including environmental protection, social equity, and economic resilience [66]. This multidimensional concept integrates economic, environmental, and social pillars, all of which are essential for achieving genuine long-term sustainability. However, the degree to which firms can effectively implement sustainability strategies varies depending on factors such as organizational size, maturity, and strategic capacity [67]. While sustainability reporting, such as adherence to GRI standards, is commonly used to signal commitment [67,68], genuine sustainability requires deeper structural transformation in business operations and logic. In general, financially stronger firms are better positioned to adopt sustainability practices, as they can allocate greater resources to such initiatives [69].

A growing body of research highlights a strong positive association between sustainability performance and financial outcomes [70]. The real impact, however, emerges when firms embed sustainability principles directly into their core strategies through BMI. Sustainable BMI enables firms to deliver socially and environmentally responsible products, expand into new markets, and develop novel revenue streams, thereby reinforcing long-term viability and competitive advantage [71,72]. Moreover, customer perception plays a crucial role in driving FS. As consumer awareness of ethical and environmental issues increases, firms that innovate responsibly are more likely to gain trust, enhance brand reputation, and strengthen CL. A business model perceived as both innovative and sustainability-oriented not only garners public support but also contributes to finan-

cial resilience and long-term business success. Based on this reasoning, we propose the following hypothesis:

H4. *Customers' perception of business model innovation positively influences firm sustainability.*

CS is widely recognized as a foundational element in the development of CL. While these two concepts are closely linked, they differ in nature: satisfaction typically represents a post-usage evaluation, which is more immediate and situational, whereas loyalty reflects an enduring commitment and a deeper emotional attachment to the brand [73]. Loyalty develops progressively across multiple stages, such as cognitive, affective, conative, and behavioral, indicating that it is not merely a transactional outcome but rather a multi-layered process shaped by product perceptions, individual preferences, and social dynamics [73,74]. Extensive empirical research confirms that CS plays a critical role in shaping CL. Satisfied customers are more likely to repurchase from firms that consistently meet or exceed their expectations [75], and CS is considered essential in building both attitudinal and behavioral loyalty [76,77]. Interestingly, the relationship between CS and CL may exhibit a nonlinear pattern, where incremental increases in satisfaction can result in disproportionately stronger loyalty [78]. Based on this evidence, we propose the following hypothesis:

H5. *Customer satisfaction positively influences customer loyalty.*

While CS is a key determinant of CL, the strength of this relationship can be influenced by contextual factors. One important factor is customers' perception BMI. When customers perceive that a firm is innovating not only in its products and services but also in how it creates, delivers, and captures value, satisfaction is more likely to translate into long-term loyalty, reinforcing the firm's strategic relevance and competitive advantage [38]. Understanding customer priorities enables firms to tailor offerings to align with expectations, while trust and perceived quality further strengthen this bond [79,80].

In this sense, BMI may act as a moderating mechanism that enhances the CS–CL relationship. Firms that demonstrate visible, customer-centric innovation, such as transparent operational processes, personalized service models, and adaptive engagement strategies, are more likely to convert satisfied customers into loyal advocates [64,65]. Therefore, we propose the following hypothesis:

H5a. *Customers' perception of business model innovation moderates the relationship between customer satisfaction and customer loyalty.*

CS is instrumental in achieving FS. As noted by [81], CS directly contributes to customer retention, revenue growth, and long-term profitability, which are key pillars of sustainable performance. As sustainability becomes a global priority, consumers increasingly favor companies that demonstrate social and environmental responsibility. In response, firms are embedding sustainability into their business strategies, frequently adopting models such as the circular economy, which require significant operational adaptations and enhanced capabilities [82,83]. Sustainable practices align with customer values and drive satisfaction. For instance, green initiatives have been shown to significantly enhance CS, which, in turn, increases repurchase intentions and long-term engagement [84]. Satisfied customers reinforce FS by promoting consistent interactions, brand loyalty, and reputational resilience [85]. Based on this evidence, we propose the following hypothesis:

H6. *Customer satisfaction positively influences firm sustainability.*

While CS contributes significantly to FS, the strength of this relationship may be amplified by customers' perception of BMI. When firms adopt innovative business models that integrate sustainability principles, such as transparency, circularity, and social equity, and customers are more likely to interpret their satisfaction as part of a broader ethical alignment [12]. This perception increases consumer trust, advocacy, and willingness to support the firm over time, thereby strengthening the CS–FS connection. Thus, BMI acts as a moderating factor that deepens the impact of satisfaction on FS by enhancing alignment with customer expectations and shared values [27,85]. Accordingly, we propose the following hypothesis:

H6a. *Customers' perception of business model innovation moderates the relationship between customer satisfaction and firm sustainability.*

CL plays a vital role in enhancing FS, particularly by reinforcing the economic dimension of long-term viability [86]. Loyal customers contribute to consistent revenue through repeat purchases, premium pricing, and reduced acquisition costs. They also act as brand advocates, strengthening market positioning and defending against competitive pressures [86,87]. This sustained profitability motivates firms across industries to adopt sustainability-oriented strategies as a form of differentiation [29,32]. However, the magnitude of loyalty's impact on FS may vary depending on whether a firm operates in product- or service-based industries [81]. Based on this reasoning, we propose the following hypothesis:

H7. *Customer loyalty positively influences firm sustainability.*

Beyond financial contributions, CL influences FS strategies both strategically and reputationally. Loyal customers often expect firms to align with ethical and environmental standards, creating pressure and opportunities for companies to adopt sustainability initiatives [88,89]. This expectation encourages firms to embed sustainability within their core business models to maintain and strengthen loyalty relationships [90]. Moreover, socially responsible innovation enhances brand reputation and increases customers' willingness to support and advocate for the firm [91]. In this regard, customers' perception of BMI acts as a critical moderating factor. When customers view a firm's business model as innovative, particularly in its sustainability orientation, they are more likely to associate their loyalty with shared values [15,51]. This perception amplifies the impact of CL on FS, reinforcing both economic and reputational sustainability outcomes. Accordingly, we propose the following hypothesis:

H7a. *Customers' perception of business model innovation moderates the relationship between customer loyalty and firm sustainability.*

3. Methodology

3.1. Research Model

Figure 1 presents the proposed research model, which depicts the relationships between the determinants of customers' perception of BMI, CS, CL, and FS. Additionally, the model highlights the moderating role of customers' perception of BMI in the relationships between CS and CL, CL and FS, as well as CS and FS.

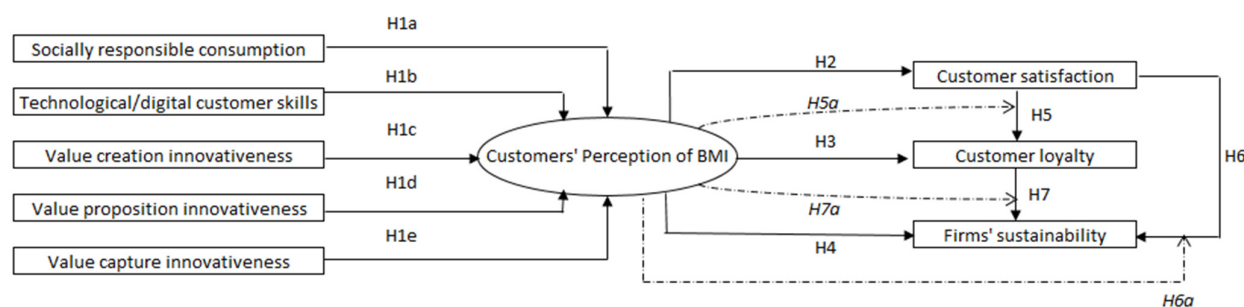


Figure 1. Diagram of the research model. Note: Hypotheses in italics, arrows, and dashes lines represent the moderating effect on the relationships between variables.

3.2. Measurement of Constructs

To collect data on customers' perception of BMI in the EFEGs, an online survey was employed. The survey instrument was pre-tested and refined based on expert feedback to improve clarity, content validity, and reliability. The use of an online format was justified by the nature of the study, as customers' perception of BMI includes the construct of TCS, which relates the ease and autonomy of using digital tools. Online survey methods offer several advantages, including cost efficiency, broad geographic reach, and the ability to collect real-time insights. This study capitalizes on these benefits while acknowledging potential limitations, such as response bias and digital divide issues, which may affect representativeness. By leveraging the scalability and convenience of online surveys, valuable data can be efficiently gathered to inform evidence-based decision-making. However, ensuring reliable and valid data collection requires careful attention to these methodological challenges. In this study, specific measures were adopted to mitigate such risks, allowing the advantages of online surveys to be effectively harnessed while maintaining data quality and credibility. Table 1 outlines the operational definitions and sources of measurement for each construct included in the study. The survey instrument was organized into three main sections:

- **Socio-demographic information:** This section collected data on participants' gender, age, level of education, occupation, and monthly income (see Table 2).
- **Perceived features and challenges of EFEGs:** Participants were asked to identify key features and challenges related to EFEGs, based on prior literature [2,92,93] (see Table 3).
- **Construct measurement:** The final section included 45 items across 9 constructs, each measured using a five-point Likert scale (1 = Strongly disagree; 5 = Strongly agree). These constructs were designed to assess the determinants of customers' perception of BMI, CS, CL, and FS.

Table 1. Constructs, operational measurements, and related sources.

Construct	Items (Statements)	Label	Related Literature
Socio-demographic information	Gender, age, level of education, occupation, and monthly income.		Nominal scale
Knowledge of EFEGs	Characteristics and challenges of EFEGs.		
Socially responsible consumption (SRC)	I strive to purchase from firms that pay fair wages.	SRC1	[26,29,30].
	I avoid buying from firms that discriminate.	SRC2	
	I donate to charities through my purchases.	SRC3	
	I consume products not made with child labor.	SRC4	
	I support firms hiring people with disabilities.	SRC5	

Table 1. Cont.

Construct	Items (Statements)	Label	Related Literature
Technological/digital customer skills (TCS)	I'm familiar with firms' digital services. Most firms I buy from offer apps/websites. COVID-19 increased my use of digital services. I prefer electronic payments. I use chatbots/social media to resolve queries.	TCS1 TCS2 TCS3 TCS4 TCS5	[37–39]
Value creation innovativeness (VCrI)	Employees serve me efficiently. Technical staff are efficient. Services are personalized. Production processes are innovative. Firms show responsibility and governance	VCrI1 VCrI2 VCrI3 VCrI4 VCrI5	[38,40,43]
Value proposition innovativeness (VPI)	Firms support social innovation. Firms use creative advertising/sales. Products/services are innovative. Firms have social media/websites. Firms monitor quality of service.	VPI1 VPI2 VPI3 VPI4 VPI5	[46,47,49]
Value capture innovativeness (VCI)	Firms offer complementary services. I enjoy integrated service offerings. Good price/quantity ratio. Good price/quality ratio. Competitive price differentiation.	VCI1 VCI2 VCI3 VCI4 VCI5	[5,15,94]
Customers' perception of BMI	I feel secure transacting digitally. Firms authenticate my identity. Offers are tailored to my preferences. Firms are transparent in operations. Firms lead their economic sectors.	BMI1 BMI2 BMI3 BMI4 BMI5	[29,40,49]
Customer satisfaction (CS)	I'm satisfied with service quality. Customer service is high quality and friendly. Staff are knowledgeable and helpful. Customer service is personalized. Firms are well-positioned in the market.	CS1 CS2 CS3 CS4 CS5	[50,55,57]
Customer loyalty (CL)	Firms recognize me as a loyal customer. I mention firms' attributes. I consider myself a loyal customer. I find it difficult to switch brands/firms. I feel an emotional or identity bond.	CL1 CL2 CL3 CL4 CL5	[32,60,61]
Firms' sustainability (FS)	Firms comply with national laws. Firms protect my data confidentiality. Firms maintain strong management. I align with firms' mission and values. Firms have long-standing market presence.	FS1 FS2 FS3 FS4 FS5	[66,69,70]

Table 2. Socio-demographic characteristics of respondents.

Variables	Categories	Frequencies	Percentages
Gender	Men	191	55.8%
	Women	151	44.2%

Table 2. *Cont.*

Variables	Categories	Frequencies	Percentages
Age	26–35 years old	149	43.6%
	36–45 years old	101	29.5%
	46–55 years old	39	11.4%
	18–25 years old	38	11.1%
	Older than 56 years	15	4.4%
Education level	College graduates	142	41.5%
	Master’s and/or doctorate degrees	134	39.2%
	Junior college graduates	66	19.3%
Occupation	Private employees	164	48.0%
	Public employees	101	29.5%
	Non-governmental organization employees	24	7.0%
	Entrepreneur/self-employed	20	5.8%
	Students	18	5.3%
	Other	15	4.4%
Monthly income (USD)	460.00–700.00	132	38.6%
	700.01–950.00	77	22.5%
	950.01–1200.00	59	17.3%
	1200.01–1500.00	37	10.8%
	More than 1500.00	37	10.8%

Table 3. Frequency table for knowledge of EFEGs.

Variables	Categories	Frequencies	Percentages
Characteristics of EFEGs (multiple choice question)	Economic elite	191	55.8%
	Economic power	191	55.8%
	Economic interrelation	151	44.2%
	Social commitment	125	36.5%
	Political elite	104	30.4%
	Diversification	76	22.2%
	Communication power	61	17.8%
	Internationalization	52	15.2%
	Political power	40	11.7%
	Strategic control	35	10.2%
Challenges of EFEGs (multiple choice question)	Sustained growth of the EG	256	74.9%
	Innovation	182	53.2%
	Subsistence of the EG	136	39.8%
	Economic environment/situation	126	36.8%
	Implementation of corporate governance	126	36.8%
	Generational succession	113	33.0%
	Professionalization of managers	87	25.4%

3.3. Sampling and Procedures

Electronic survey data were collected using the Google Forms platform between August 2024 and January 2025. A total of 368 responses were initially recorded; after excluding incomplete, duplicate, and inconsistent responses, the final sample consisted of 342 valid cases. The survey targeted customers of the ten most representative EFEGs during 2023. These firms comprised five financial institutions: Banco Pichincha, Banco de Guayaquil, Produbanco, Banco Bolivariano, and Banco Internacional, and five non-financial firms: Almacenes Juan ElJuri, Corporación Favorita, Schlumberger del Ecuador, OCP Ecuador, and Corporación El Rosado. Data processing and statistical analysis were conducted using

IBM SPSS Statistics 27.0 for descriptive and exploratory analyses and Amos 26.0 for CFA and SEM.

The minimum required sample size was estimated based on established guidelines for SEM, as it is the primary analytical technique employed in this study. According to methodological recommendations [95,96], SEM requires a minimum of 10 responses per estimated parameter, with an absolute minimum of 200 cases to ensure sufficient internal reliability, consistency, and statistical power for robust parameter estimation. Our research model comprised 9 latent constructs measured by 34 items, with Cronbach's alpha values exceeding the recommended reliability threshold of $\alpha > 0.6$. Considering the number of free parameters and adopting the conservative 10:1 ratio (responses per parameter), the minimum required sample size was approximately 300 respondents. Data collection initially yielded 368 responses, which, after excluding incomplete, duplicate, and inconsistent records, resulted in a final dataset of 342 valid cases, exceeding the recommended threshold for SEM.

The survey was distributed through the official communication channels of the ten selected EFEGs to directly reach their customers. Participation was entirely voluntary and anonymous. Given the high urban concentration of EFEG customers and the considerable internet penetration rate in Ecuador's urban areas (approximately 78% according to [97]), an online survey was considered the most appropriate and efficient data collection method. The inclusion criteria required respondents to (i) be current customers of the selected firms, (ii) be at least 18 years of age, and (iii) have engaged in at least one transaction or service interaction with the firm within the past 12 months. These criteria ensured that all responses were based on recent and relevant customer experiences, thereby enhancing the validity and reliability of the collected data.

To assess potential common method bias, Harman's single-factor test was conducted. The results indicated that the first factor accounted for less than 50% of the total variance, suggesting a minimal threat of common method bias and supporting the representativeness of the data [96]. EFA was then performed, yielding a Kaiser–Meyer–Olkin (KMO) value of 0.865, exceeding the recommended threshold of 0.80, and a significant Bartlett's Test of Sphericity ($p < 0.001$), thus confirming the adequacy of the data for factor analysis. Using the principal components extraction method with Oblimin rotation, the total explained variance reached 79.877%, which is considered satisfactory for social science research.

Subsequently, CFA was performed to evaluate the validity of the measurement model. This analysis retained 34 items across the nine constructs: 5 items for SRC, 3 for TCS, 4 for VCRI, 4 for VPI, 4 for VCI, 4 for BMI, 3 for CS, 3 for CL, and 4 for FS. Discriminant validity was established using the Average Variance Extracted (AVE), with all constructs reporting AVE values above the recommended threshold of 0.5. Composite reliability values for all constructs exceeded 0.7, confirming adequate internal consistency [98,99]. Finally, SEM was applied to test the hypothesized relationships between observed variables and latent constructs. The results confirmed the model's overall fit and predictive power, supporting the proposed theoretical framework.

The representativeness of the sample and, consequently, the representativeness of the results are critical considerations for evaluating the applicability of the study's findings across all EFEGs, which also constitutes an important limitation of this research. First, the sampling was confined to the ten largest and most influential EFEGs, which together represent more than 40% of assets of all economic groups in Ecuador. Although this selection enhances the relevance of the findings, it may not fully capture the diversity of customer experiences in medium-sized or smaller EFEGs. Second, the study focused exclusively on urban customers, justified by the high internet penetration in urban areas.

As a result, customers in rural areas or those with limited internet access were not included, which may lead to an underrepresentation of these segments.

Nevertheless, the inclusion of both financial and non-financial sectors, combined with the relatively large sample size, increases the likelihood that the findings are reasonably representative of the broader population of EFEG customers, particularly in urban contexts. However, caution should be exercised when generalizing these results to all EFEGs or to rural customer segments. Additionally, the specific legal and regulatory frameworks governing EFEGs should be taken into account when extrapolating these findings to other contexts.

4. Empirical Results

4.1. Demographic Analysis

Table 2 summarizes the socio-demographic characteristics of the 342 participants included in the final sample. The gender distribution was relatively balanced, with 55.8% identifying as male and 44.2% as female. The majority of respondents (73.1%) were within the 26–45 age range, indicating a predominantly young to middle-aged demographic profile. Regarding educational attainment, 80.7% of participants reported holding at least a university degree, with a significant proportion possessing a master's or doctoral degree. In terms of employment status, 77.5% of respondents ($n = 265$) were employed in either private or public sector organizations. With respect to income, more than three-quarters of participants ($n = 268$, or 78.4%) reported a monthly income between USD 450.00 and USD 1200.00.

Table 3 presents respondent's perceptions of the key characteristics and challenges of EFEGs. The multiple-choice question results revealed that more than 50% of respondents identified economic elite and economic power as the most representative features of EFEGs, whereas political power and strategic control were perceived as fewer defining characteristics. Regarding challenges, respondents predominantly highlighted sustained growth and innovation as critical priorities for EFEGs. In contrast, generational succession and the professionalization of managers were considered comparatively less significant challenges by the participants.

4.2. Descriptive Statistics and Exploratory Factor Analysis

Table 4 presents the descriptive statistics and the results of the EFA. The KMO measure of sampling adequacy was 0.865, exceeding the recommended threshold of 0.80, and Bartlett's test of sphericity was statistically significant ($p = 0.000$), confirming the suitability of the data for factor analysis. The total variance explained by all significant items and constructs was 79.877%, indicating a strong representation of the underlying factors. Furthermore, all AVE values exceeded the recommended threshold of 0.50, supporting the convergent validity of the constructs.

Among all constructs, CS achieved the highest composite mean score ($\mu = 4.175$), suggesting that respondents are generally satisfied with the quality of service and the expertise demonstrated by firm staff in resolving customer inquiries. This high level of satisfaction likely contributes to the strong market positioning of the firms analyzed. Regarding the determinants of customers' perception of BMI, TCS emerged as the most prominent factor ($\mu = 4.055$), reflecting customer's appreciation for efficient and accessible digital service channels. Conversely, VCRI received the lowest mean score ($\mu = 3.829$), indicating that while customers recognize the efficiency of service delivery and digital purchasing options, there remains potential for improvement in firms' innovative efforts, particularly in production processes and service personalization. These findings emphasize that customers value fair practices, ease of electronic transactions, efficient support services,

and integrated solutions. Such factors contribute to the perception that these firms are leaders in their respective sectors, positively influencing CS and CL and exerting a favorable long-term impact on FS. Finally, AVE values ranged from 0.552 for the SRC construct to 0.661 for the CL construct, all exceeding the minimum recommended of 0.5, further confirming the robustness of the measurement model.

Table 4. Descriptive statistics and exploratory factor analysis.

Construct	Label	Mean	Std. Dev.	Composite Mean	Factor Loadings	AVE
SRC	SCR1	4.187	1.102	3.889	0.710	0.552
	SCR2	4.246	1.063		0.796	
	SCR3	3.292	1.411		0.667	
	SCR4	3.652	1.475		0.825	
	SCR5	4.067	1.148		0.705	
TCS	TCS1	3.874	1.038	4.055	0.702	0.568
	TCS2	4.082	0.944		0.767	
	TCS4	4.208	1.019		0.789	
VCrI	VCrI1	4.076	0.821	3.829	0.888	0.627
	VCrI3	3.763	0.995		0.739	
	VCrI4	3.781	0.917		0.743	
	VCrI5	3.696	1.025		0.789	
VPI	VPI1	3.681	0.907	3.968	0.789	0.560
	VPI2	3.991	0.973		0.641	
	VPI3	3.792	0.981		0.750	
	VPI4	4.406	0.850		0.802	
VCI	VCI1	3.734	1.043	3.936	0.714	0.536
	VCI2	4.073	0.946		0.844	
	VCI3	3.988	0.947		0.703	
	VCI5	3.950	0.954		0.654	
BMI	BMI2	3.947	0.927	3.811	0.861	0.554
	BMI3	3.760	0.880		0.719	
	BMI4	3.564	1.156		0.687	
	BMI5	3.971	0.814		0.698	
CS	CS1	3.997	0.905	4.175	0.722	0.590
	CS3	4.099	0.864		0.777	
	CS5	4.430	0.714		0.803	
CL	CL3	3.573	1.117	3.364	0.723	0.661
	CL4	3.456	1.214		0.814	
	CL5	3.061	1.361		0.893	
FS	FS1	3.848	0.993	3.777	0.883	0.628
	FS2	3.635	1.198		0.754	
	FS4	3.322	1.271		0.831	
	FS5	4.304	0.808		0.687	

Note: N = 342. AVE = average variance extracted. Kaiser–Meyer–Olkin (KMO) = 0.865. Significance of Bartlett’s Test of sphericity = 0.000. Extraction sums of squared loadings (cumulative variance explained) = 79.877%. Extraction method: principal component analysis. Rotation method: Oblimin. Factor extraction criteria: eigenvalue (1, 0).

4.3. Validity and Reliability Analyses

Table 5 presents the results of validity, reliability, and inter-construct correlation analyses. Discriminant validity was confirmed, as the square roots of AVE for each construct (diagonal values) were greater than the corresponding inter-construct correlation coefficients in the same columns and rows. These diagonal values ranged from 0.732 to 0.813, indicating a satisfactory level of discriminant validity. Internal consistency was confirmed by Cronbach’s alpha coefficients, all of which exceeded the minimum acceptable threshold

of 0.60, with values ranging from 0.645 for TCS to 0.804 for VCI. Additionally, composite reliability (CR) scores for all constructs were above the recommended benchmark of 0.70, ranging from 0.812 for CS to 0.870 for VCrI and FS, confirming the adequate reliability of all constructs. Finally, multicollinearity was not detected in the model, as none of the Pearson correlation coefficients among constructs exceeded the conservative threshold of 0.70 [100]. This further validates the independence of the constructs and the robustness of the measurement model.

Table 5. Descriptive statistics and correlation matrix.

Const.	Items	CA	CR	SRC	TCS	VCrI	VPI	Correlations VCI	BMI	CS	CL	FS
SRC	5	0.828	0.860	(0.743)								
TCS	3	0.645	0.797	0.342 ***	(0.754)							
VCrI	4	0.776	0.870	0.451 ***	0.573 ***	(0.792)						
VPI	4	0.825	0.835	0.477 ***	0.461 ***	0.514 ***	(0.748)					
VCI	4	0.838	0.821	0.396 ***	0.516 ***	0.605 ***	0.661 ***	(0.732)				
BMI	4	0.804	0.831	0.324 ***	0.471 ***	0.681 ***	0.634 ***	0.685 ***	(0.744)			
CS	3	0.732	0.812	0.272 ***	0.384 ***	0.659 ***	0.625 ***	0.688 ***	0.552 ***	(0.768)		
CL	3	0.792	0.853	0.382 ***	0.431 ***	0.509 ***	0.574 ***	0.651 ***	0.618 ***	0.491 ***	(0.813)	
FS	4	0.739	0.870	0.468 ***	0.330 ***	0.633 ***	0.609 ***	0.613 ***	0.679 ***	0.690 ***	0.601 ***	(0.792)

Note: CA = Cronbach's alpha. CR = composite reliability. Values in parentheses on the diagonal represent the square root of the AVE. *** indicates significance at the 1% level.

4.4. Regression Analysis

Table 6 presents the results of multiple linear regressions conducted to examine the effects of the key determinants of customers' perception of BMI on CS, CL, and FS. Additionally, the analysis evaluated whether BMI moderates the relationships between CS–CL, CS–FS, and CL–FS within the context of EFEGs.

Table 6. Multiple regression results.

Hypothesis	Independent Var.	Dependent Var.	β	t	VIF	Adj. R ²	Durbin Watson	F	Decision
H1	SRC	BMI	0.071 **	1.975	1.333	0.665	2.109	136.460 ***	Accepted
	TCS		0.048 **	2.209	1.587				
	VCrI		0.106 **	1.999	3.554				
	VPI		0.276 ***	4.435	3.930				
	VCI		0.504 ***	9.916	2.635				
H1a	SRC	BMI	0.324 ***	6.310	1.000	0.102	2.176	39.816 ***	Accepted
H1b	TCS	BMI	0.471 ***	9.850	1.000	0.220	2.115	97.027 ***	Accepted
H1c	VCrI	BMI	0.681 ***	17.154	1.000	0.462	2.093	294.259 ***	Accepted
H1d	VPI	BMI	0.734 ***	19.918	1.000	0.537	2.073	396.729 ***	Accepted
H1e	VCI	BMI	0.785 ***	23.389	1.000	0.616	2.172	547.064 ***	Accepted
H2	BMI	CS	0.752 ***	21.005	1.000	0.563	2.163	441.203 ***	Accepted
H3	BMI	CL	0.618 ***	14.506	1.000	0.380	1.988	210.418 ***	Accepted
H4	BMI	FS	0.679 ***	17.047	1.000	0.459	2.100	290.597 ***	Accepted
H5	CS	CL	0.491 ***	10.389	1.000	0.239	1.896	107.935 ***	Accepted
H5a	BMI	CL	0.508 ***	2.840	3.539	0.379	1.903	70.278 ***	Rejected
	CS		0.018	0.143	4.676				
	BMI $\times$ CS		0.102	0.392	3.440				
H6	CS	FS	0.690 ***	17.567	1.000	0.474	1.982	308.609 ***	Accepted
H6a	BMI	FS	0.547 ***	3.529	1.539	0.533	2.107	130.699 ***	Accepted
	CS		0.528 ***	4.844	4.676				
	BMI $\times$ CS		0.280 **	2.234	3.440				
H7	CL	FS	0.601 ***	13.852	1.000	0.359	2.011	191.883 ***	Accepted
H7b	BMI	FS	0.481 ***	4.362	3.467	0.510	2.024	119.086 ***	Accepted
	CL		0.264 ***	2.470	2.470				
	BMI $\times$ CL		0.041 **	2.165	3.477				

Note: Beta (β) corresponds to standardized coefficients. ** $p < 0.05$, *** $p < 0.01$.

The adjusted R^2 values ranged from 0.102 (H1a) to 0.665 (H1), indicating moderate to strong explanatory power of the independent variables. Durbin-Watson statistics were close to 2 across all models, suggesting no evidence of first-order autocorrelation [100]. Moreover, F-statistics were significant at the 1% level, confirming the joint significance of the predictors. All hypothesized relationships were supported except H5a, indicating that customers' perception of BMI does not significantly moderate the relationship between CS and CL. However, all standardized beta coefficients were positive and statistically significant (at least at the 5% level), confirming the following relationships: (i) SRC, TCS, VCrI, VPI, and VCI positively influences customers' perception of BMI, (ii) BMI positively influences CS, CL, and FS, (iii) CS positively influences CL and FS, and (iv) CL positively influences FS. Finally, customers' perception of BMI was found to significantly moderate the relationships between CS–FS and CL–FS, reinforcing its strategic role in enhancing firm performance.

5. Discussion

This study examined the impact of customers' perceptions of BMI on EFEGs. Specifically, it analyzed five key dimensions of BMI perception: SRC, TCS, VCrI, VPI, and VCI. Drawing on previous studies suggesting that such customer perceptions influence CS, CL, and FS, a research model was developed, and operational definitions of variables, as well as corresponding questionnaire items, were established. An empirical analysis was conducted to investigate how these BMI perception dimensions affect CS, CL, and FS. Additionally, the moderating role of customers' overall perception of BMI in the relationships among these variables was explored. The findings provide both theoretical and practical implications by offering strategic guidelines for EFEGs. These insights aim to support decision-makers in designing innovation-driven strategies that strengthen customer relationships, enhance market competitiveness, and promote long-term sustainability in the context of family business ecosystems.

Thus, this research investigates the influence of key components of customers' perception of BMI on CS, CL, and FS within the context of EFEGs. It also examines the moderating role of customers' perception of BMI in the relationships between CS and CL, CS and FS, and CL and FS. The findings are particularly relevant given the unique organizational structures and market dominance of EFEGs.

The results confirm that all hypothesized relationships are statistically significant, except for the moderating effect of BMI on the CS–CL relationship. Specifically, SRC, TCS, VCrI, VPI, and VCI were identified as significant determinants of customers' perception of BMI. Moreover, BMI was found to positively influence CS, CL, and FS, while also moderating the relationships between CS–FS and CL–FS, strengthening their effects on firm performance. These findings are consistent with prior research, reinforcing the notion that these five determinants contribute significantly to shaping customer perceptions in EFEGs. Customers place strong value on organizational attributes such as ethical business practices, visionary strategic planning, leadership quality, employee satisfaction, personalized offerings, integrated services, transparency, sustainability, innovation, and dynamic capabilities. Together, these attributes reflect an advanced and responsive business model aligned with evolving market demands and customer expectations.

Such capabilities provide firms with a sustainable competitive advantage and enable market differentiation. In turn, these dynamics foster strong customer engagement, reinforcing trust, loyalty, satisfaction, and ultimately contributing to long-term FS. This study highlights the critical role of BMI in influencing not only customer perceptions but also behavioral and attitudinal outcomes. By strengthening emotional connections between customers and brands, BMI enhances repurchase intentions and long-term loyalty. For

managerial perspective, the findings suggest that EFEGs should prioritize BMI as a strategic pillar, integrating innovative practices and customer-centric approaches to enhance value creation. Additionally, fostering internal capabilities and networks that support transparency, technological integration, and sustainable practices will further consolidate customer relationships and ensure business longevity.

5.1. Theoretical Implications

BMI plays a critical role in enhancing the adaptability and competitiveness of FEGs, particularly in emerging and dynamic markets such as Ecuador. BMI represents a paradigm shift that enables firms to reconfigure their value propositions, customer engagement strategies, and revenue models. This strategic flexibility allows FEGs to respond proactively to market volatility, technological changes, and institutional uncertainty, thereby strengthening their competitive positioning. From a theoretical perspective, BMI can be conceptualized as a dynamic capability that equips firms with the means to integrate, build, and reconfigure both internal and external resources to adapt to rapidly evolving environments. Such capabilities facilitate operational adaptation, revenue diversification, and market exploration, ultimately contributing to organizational resilience. In the specific context of family firms, BMI functions as a mechanism to leverage their inherent strengths, such as cohesive internal relationships, a long-term strategic orientation, and deep-rooted family values. These attributes allow firms to innovate and evolve in alignment with technological advancements and shifting market demands.

A critical dimension influencing BMI in family firms is the concept of socioemotional wealth, which encompasses the non-financial aspects of firm value, including family identity, shared values, control and influence over the business, societal legitimacy, and the desire to preserve and perpetuate the family legacy. These socioemotional considerations often shape strategic decision-making and innovation trajectories. In the context of BMI, socioemotional wealth may both enable and constrain change, while the aspiration for intergenerational continuity can motivate innovation, the desire to maintain traditional structures may limit the adoption of more radical business model transformations. Empirical evidence from Ecuador supports the relevance of these dynamics. Ref. [101] found that industrial small and medium-sized enterprises exhibiting higher levels of entrepreneurial orientation demonstrated stronger innovation capacity and greater strategic flexibility. This suggests that cultivating an entrepreneurial mindset within family firms can significantly enhance their ability to design and implement effective BMI strategies.

Furthermore, open innovation, defined as the strategic use of external knowledge and partnerships to complement internal innovation efforts, is an important contributor to BMI. For Ecuadorian family firms, adopting open innovation requires a delicate balance between leveraging external collaborations and maintaining family control. Ref. [6] highlight that while open innovation can stimulate BMI, the desire to retain autonomy often limits the scope and depth of such initiatives. Overall, BMI plays a moderating role in shaping the performance and adaptability of FEGs. Its effectiveness is influenced by a complex interplay of dynamic capabilities, socioemotional wealth, entrepreneurial orientation, openness to innovation, and the broader cultural and institutional context. In Ecuadorian family firms, these factors interact in context-dependent ways, ultimately shaping both the trajectory and the outcomes of BMI.

5.2. Managerial/Practical Implications

This study provides several managerial and practical insights derived from the synthesis of its findings.

First, it conceptualizes and empirically applies definitions of BMI, CS, CL, and FS within real industry settings. Notably, it offers new insights into customer perceptions of BMI in the context of FEGs operating in the Ecuadorian market, an area that has been largely unexplored. The findings suggest that BMI can be both relevant and impactful in emerging economies where family-owned firms hold dominant positions. This underscores the need for managers to foster innovation capabilities, cultivate entrepreneurial orientation, and strategically leverage socioemotional wealth to remain competitive. Second, this research addresses a critical methodological gap by providing a standardized measurement framework for BMI in conjunction with constructs such as SRC, TCS, VCrI, VPI, VCI. The identification of universal BMI measurement items reflecting customer perceptions across diverse industries and channels can guide managers in monitoring and benchmarking their innovation efforts. Furthermore, the study highlights key drivers of customer perception, enabling firms to prioritize the most influential factors in the innovation strategies. Third, when analyzing the relationship between customer perception and satisfaction in the FEG context, the findings indicate that customers are increasingly accustomed to technological innovations, often perceiving them as extensions of existing services rather than as distinct innovations. This familiarity contributes to higher satisfaction levels, as customers find digital solutions easy to adopt. However, digital integration, service enhancements, and transparency are now considered baseline expectations rather than differentiating factors. For managers of EFEGs, this implies that digital integration, service innovation, and operational transparency should be treated as essential operational standards rather than optional enhancements. To sustain CS and CL, these elements must be seamlessly embedded into the customer experience. Managers should focus on delivering consistent, user-friendly services, while simultaneously exploring advanced innovation avenues that go beyond basic expectations, such as personalized service models, sustainability-driven value propositions, and data-driven predictive engagement strategies. These efforts will help firms maintain customer trust, strengthen loyalty, and secure long-term sustainability in increasingly competitive and dynamic markets.

6. Conclusions

In this study, an empirical analysis was conducted to examine how the key dimensions of customers' perceptions of BMI influence CS, CL, and FS. The findings provide valuable insights for both theory and practice, offering strategic directions for the development of theoretical frameworks and practical guidelines tailored to the unique context of EFEGs. These strategic guidelines aim to support decision-makers in enhancing innovation capabilities, strengthening customer relationships, and promoting long-term sustainability within family business ecosystems. It also explored the moderating role of BMI in the relationships among CS, CL, and FS. The results reveal that economic power and elite status are perceived as core attributes of EFEGs, whereas sustained growth and innovation represent the most pressing challenges. In contrast, political influence and managerial professionalization were perceived as less critical, suggesting that customers prioritize value creation over structural control. Findings from the EFA and multiple linear regression confirmed the robustness of the proposed model: SRC, TCS, VCrI, VPI, and VCI all significantly influenced customers' perceptions of BMI. BMI was found to have a positive effect on CS, CL, and FS, and significantly moderated the relationships between CS–FS and CL–FS, although it did not moderate the CS–CL link. These findings align with prior studies [4–6,61,101], reinforcing the view that innovation capabilities and entrepreneurial orientation are critical drivers of adaptability and performance in family firms. The results further support the theoretical perspective that socioemotional wealth, dynamic capabilities, and openness to innovation are essential for effective BMI implementation, particularly in emerging markets

such as Ecuador. Overall, this study underscores the strategic relevance of BMI as a crucial lever for enhancing organizational adaptability, deepening customer engagement, and fostering long-term sustainability in family business ecosystems.

This study systematically analyzed the relationships between BMI characteristics and both customer behavior (CS and CL) and corporate behavior (FS) within the context of FEGs, thereby contributing to a deeper understanding of the dynamics and strategic implications of these organizational forms. This study provides several original contributions to the literature on BMI and family business research. First, it expands the empirical understanding of BMI by adopting a customer-centric perspective, a dimension often overlooked in favor of managerial or organizational viewpoints. By analyzing how customers perceive BMI, the study offers insights into how innovation is experienced and valued in market interactions. Second, it situates BMI within the unique socio-economic context of Ecuador, where FEGs play a dominant role. This contextualization contributes to a more comprehensive understanding of how BMI unfolds in emerging markets with distinct cultural, institutional, and structural characteristics. Third, the study proposes a multidimensional model that integrates key innovation constructs, including VCrI, VPI, VCI, alongside customer capabilities such as TCS. This framework enhances the theoretical understanding of how customer perceptions of innovation influence CS, CL, and FS. Fourth, by examining the moderating role of perceived BMI on the relationships between CS, CL, and FS, the study offers a more nuanced view of how innovation perceptions condition customer behavior and long-term business performance. Finally, the study adopts a multidisciplinary theoretical approach, drawing from strategic management, innovation theory, consumer behavior, and family business literature. It aligns with the dynamic capabilities' framework, which emphasizes the continual reconfiguration of firm resources and competencies in response to evolving environmental conditions.

Despite its theoretical and practical contributions, this study has certain limitations that provide avenues for future research. First, it focuses exclusively on EFEGs, which may limit the generalizability of its findings to other regional or institutional contexts, especially considering the variation in legal framework governing family business groups across countries. Second, the reliance on cross-sectional survey data restricts the ability to observe longitudinal dynamics, such as how customer perceptions of BMI evolve over time or how BMI influences sustained competitive advantage. Third, the study primarily examines customer perceptions, excluding internal organizational perspectives, such as those of management or employees, which could offer a more holistic understanding of BMI processes and their implementation challenges. This study did not account for the full diversity of customer perceptions regarding BMI. The characteristics of customer perceptions examined were limited to respondents participating in the online survey. In practice, however, the influence of BMI characteristics, and potentially other unexamined factors, may vary depending on different determinants of customer performance (e.g., CS and CL) and corporate performance (e.g., FS). Another limitation of this study is the absence of qualitative analysis to complement the quantitative approach. While SEM provides robust statistical evidence of the relationships among variables, it does not fully capture the underlying causal mechanisms or the contextual nuances that may influence customer perceptions and firm outcomes. Furthermore, the study does not incorporate a temporal dimension, which limits the ability to analyze how causal relationships evolve over time. In real-life processes, causes and effects unfold in sequence, and overlooking this time factor may constrain the interpretation of dynamic interactions among constructs such as CS, CL, and FS.

Future research should consider broader and more diverse customer segments to capture these variations and provide a more comprehensive understanding of BMI's

impact. Moreover, studies could address these limitations by conducting comparative studies across different Latin American countries or by analyzing diverse types of family firms to test the generalizability of findings. Incorporating qualitative methods, such as in-depth interviews or case studies, would allow researchers to capture richer insights into the interaction between socioemotional wealth and innovation practices. Furthermore, examining intergenerational dynamics, governance structures, and the role of digital transformation in shaping BMI would provide a deeper understanding of sustainable value creation in family business ecosystems. Finally, future research would benefit from the use of longitudinal designs or mixed-methods approaches that integrate qualitative data to explore these processes more deeply. Such designs could help uncover the temporal succession of effects and provide a richer understanding of the strategic role of business model innovation in family business ecosystems.

Author Contributions: The authors contributed extensively to the work presented in this paper. Writing—original draft preparation, A.B.T.-P., A.C.-O., J.R. and C.W.L.; writing—review and editing, A.B.T.-P.; supervision, A.B.T.-P. All authors have read and agreed to the published version of the manuscript.

Funding: We are grateful to the Universidad de Las Américas UDLA, which financially supported this research (520.B.XV.24).

Institutional Review Board Statement: Ethical review and approval were waived for this study by Institution Committee due to Legal Regulations (<https://www.investigacionsalud.gob.ec/comite-de-etica/> accessed on 12 December 2024).

Informed Consent Statement: Informed consent for participation was obtained from all subjects involved in the study.

Data Availability Statement: Data will be made available on request.

Conflicts of Interest: The authors declare no conflicts of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript; or in the decision to publish the results.

Acronyms

AI	Artificial intelligence
AVE	Average variance extracted
BMI	Business model innovation
CL	Customer loyalty
CFA	Confirmatory factor analysis
CS	Customer satisfaction
CSR	Corporate social responsibility
EFEGs	Ecuadorian family economic groups
EGs	Economic groups
EFA	Exploratory factor analysis
FEGs	Family economic groups
FS	Firm sustainability
GRI	Global reporting initiatives
IoT	Internet of Things
KMO	Kaiser–Meyer–Olkin
SEM	Structural equation modeling
SRC	Socially responsible consumption
TCS	Technological/digital customer skills

VCI	Value capture innovativeness
VCrI	Value creation innovativeness
VPI	Value proposition innovativeness

References

- Dau, L.A.; Morck, R.; Yeung, B.Y. Business groups and the study of international business: A Coasean synthesis and extension. *J. Int. Bus. Stud.* **2021**, *52*, 161–211. [\[CrossRef\]](#)
- Tulcanaza-Prieto, A.; Morocho-Cayamcela, M. The Evolution and Takeoff of the Ecuadorian Economic Groups. *Economies* **2021**, *9*, 188. [\[CrossRef\]](#)
- Camino Mogro, S.; Bermudez, N. Las Empresas Familiares en el Ecuador: Definición y aplicación metodológica. *X-Pendientes Econ. Supt. Cía. Valores Seguros Ecuad.* **2018**, *2*, 46–72.
- Rachinger, M.; Rauter, R.; Müller, C.; Vorraber, W.; Schirgi, E. Digitalization and its influence on business model innovation. *J. Manuf. Technol. Manag.* **2019**, *30*, 1143–1160. [\[CrossRef\]](#)
- Vaska, S.; Massaro, M.; Bagarotto, E.M.; Dal Mas, F. The Digital Transformation of Business Model Innovation: A Structured Literature Review. *Front. Psychol.* **2021**, *11*, 539363. [\[CrossRef\]](#)
- López-Nicolás, C.; Meroño-Cerdán, Á.L.; Heikkilä, M.; Bouwman, H. Untangling business model innovation in family firms: Socioemotional wealth and corporate social responsibility perspectives. *Scand. J. Manag.* **2024**, *40*, 101369. [\[CrossRef\]](#)
- Arzubiaga, U.; Diaz-Moriana, V.; Bauweraerts, J.; Escobar, O. Big data in family firms: A socioemotional wealth perspective. *Eur. Manag. J.* **2021**, *39*, 344–352. [\[CrossRef\]](#)
- Saura, J.R.; Palacios-Marqués, D.; Barbosa, B. A review of digital family businesses: Setting marketing strategies, business models and technology applications. *Int. J. Entrep. Behav. Res.* **2022**, *29*, 144–165. [\[CrossRef\]](#)
- Curado, C.; Mota, A. A Systematic Literature Review on Sustainability in Family Firms. *Sustainability* **2021**, *13*, 3824. [\[CrossRef\]](#)
- Ortiz Chimbo, K.; Campos Cabrera, E.; Alvarado Márquez, M.; Alcívar Trejo, C. Análisis de las empresas familiares en Ecuador desde una óptica multivariante. *Rev. Ciencias Soc.* **2019**, *XXV*, 1–13. Available online: <https://www.redalyc.org/articulo.oa?id=28062322012> (accessed on 12 December 2024). [\[CrossRef\]](#)
- Khan, I.; Kasliwal, N.; Joshi, M. Corporate social responsibility and consumer behavior: A review to establish a conceptual model. *Int. J. Emerg. Res. Manag. Technol.* **2017**, *6*, 142–148.
- Petrovskaya, I.; Haleem, F. Socially responsible consumption in Russia: Testing the theory of planned behavior and the moderating role of trust. *Bus. Ethics. Environ. Responsib.* **2021**, *30*, 38–53. [\[CrossRef\]](#)
- Parida, V.; Sjödin, D.; Reim, W. Reviewing Literature on Digitalization, Business Model Innovation, and Sustainable Industry: Past Achievements and Future Promises. *Sustainability* **2019**, *11*, 391. [\[CrossRef\]](#)
- Mihalache, O.R.; Volberda, H.W. Business Model Innovation in Transforming Economies: A Co-evolutionary Perspective for a Global and Digital World. *Manag. Organ. Rev.* **2021**, *17*, 202–225. [\[CrossRef\]](#)
- Åström, J.; Reim, W.; Parida, V. Value creation and value capture for AI business model innovation: A three-phase process framework. *Rev. Manag. Sci.* **2022**, *16*, 2111–2133. [\[CrossRef\]](#)
- Amit, R.; Zott, C. Business Model Innovation: Creating Value in Times of Change. *IESE Bus. Sch.* **2010**, *870*, 1–17. Available online: <https://www.iese.edu/media/research/pdfs/DI-0870-E.pdf> (accessed on 14 January 2025). [\[CrossRef\]](#)
- Mitchell, D.; Coles, C. The ultimate competitive advantage of continuing business model innovation. *J. Bus. Strategy* **2003**, *24*, 15–21. [\[CrossRef\]](#)
- Chesbrough, H. Business model innovation: It's not just about technology anymore. *Strateg. Leadersh.* **2007**, *35*, 12–17. [\[CrossRef\]](#)
- Chesbrough, H. Business Model Innovation: Opportunities and Barriers. *Long Range Plann.* **2010**, *43*, 354–363. [\[CrossRef\]](#)
- Bryson, J. Business Model Innovation: The Organizational Dimension. *Br. J. Ind. Relations* **2016**, *54*, 881–883. [\[CrossRef\]](#)
- Nambisan, S. Digital Entrepreneurship: Toward a Digital Technology Perspective of Entrepreneurship. *Entrep. Theory Pract.* **2017**, *41*, 1029–1055. [\[CrossRef\]](#)
- Andreini, D.; Bettinelli, C.; Foss, N.J.; Mismetti, M. Business model innovation: A review of the process-based literature. *J. Manag. Gov.* **2022**, *26*, 1089–1121. [\[CrossRef\]](#)
- Mielcarek, P.; Dymitrowski, A. Business model innovation based on new technologies—Is it resources driven and dependent? *Eur. Bus. Rev.* **2022**, *34*, 729–748. [\[CrossRef\]](#)
- Teece, D.J. Business models and dynamic capabilities. *Long Range Plann.* **2018**, *51*, 40–49. [\[CrossRef\]](#)
- Lai, Y.Y.; Karakaya, E. Rethinking the sustainability of transitions: An illustrative case of burden-shifting and sociotechnical dynamics of aviation fuel in Sweden. *Energy Res. Soc. Sci.* **2024**, *113*, 203–215. [\[CrossRef\]](#)
- Cavazos-Arroyo, J.; Puente-Díaz, R. Customers' Perception of Business Model Innovation in Social Enterprises in Mexico. *J. Technol. Manag. Innov.* **2021**, *16*, 11–18. Available online: <https://www.scielo.cl/pdf/jotmi/v16n2/0718-2724-jotmi-16-02-11.pdf> (accessed on 28 December 2024). [\[CrossRef\]](#)

27. Golob, U.; Podnar, K.; Koklič, M.K.; Zabkar, V. The importance of corporate social responsibility for responsible consumption: Exploring moral motivations of consumers. *Corp. Soc. Responsib. Environ. Manag.* **2019**, *26*, 416–423. [\[CrossRef\]](#)
28. Zhao, H.; Gao, Q.; Wu, Y.; Wang, Y.; Zhu, X. What affects green consumer behavior in China? A case study from Qingdao. *J. Clean. Prod.* **2014**, *63*, 143–151. [\[CrossRef\]](#)
29. Busalim, A.; Fox, G.; Lynn, T. Consumer behavior in sustainable fashion: A systematic literature review and future research agenda. *Int. J. Consum. Stud.* **2022**, *46*, 1804–1828. [\[CrossRef\]](#)
30. Syed, S.; Acquaye, A.; Khalfan, M.M.; Obuobisa-Darko, T.; Yamoah, F.A. Decoding sustainable consumption behavior: A systematic review of theories and models and provision of a guidance framework. *Resour. Conserv. Recycl. Adv.* **2024**, *23*, 23–34. [\[CrossRef\]](#)
31. Schaltegger, S.; Lüdeke-Freund, F.; Hansen, E.G. Business Models for Sustainability: A Co-Evolutionary Analysis of Sustainable Entrepreneurship, Innovation, and Transformation. *Organ. Environ.* **2016**, *29*, 264–289. [\[CrossRef\]](#)
32. Hu, B.; Huang, W.; Yan, S.; Liu, G.; Zhang, T. Business Model Design and Customer Loyalty: The Mediating Role of Customer Citizenship Behavior. *Sustainability* **2020**, *12*, 7047. [\[CrossRef\]](#)
33. Wang, Z.; Zhou, Y. Business model innovation, legitimacy and performance: Social enterprises in China. *Manag. Decis.* **2021**, *59*, 2693–2712. [\[CrossRef\]](#)
34. Bocken, N.; Short, S.; Rana, P.; Evans, S. A literature and practice review to develop sustainable business model archetypes. *J. Clean. Prod.* **2014**, *65*, 42–56. [\[CrossRef\]](#)
35. Kannan, P.K.; Li, H. “Alice” Digital marketing: A framework, review and research agenda. *Int. J. Res. Mark.* **2017**, *34*, 22–45. [\[CrossRef\]](#)
36. Cozzolino, A.; Corbo, L.; Aversa, P. Digital platform-based ecosystems: The evolution of collaboration and competition between incumbent producers and entrant platforms. *J. Bus. Res.* **2021**, *126*, 385–400. [\[CrossRef\]](#)
37. de Reuver, M.; Sørensen, C.; Basole, R.C. The Digital Platform: A Research Agenda. *J. Inf. Technol.* **2018**, *33*, 124–135. [\[CrossRef\]](#)
38. Salfore, N.; Ensermu, M.; Kinde, Z. Business model innovation and firm performance: Evidence from manufacturing SMEs. *Heliyon* **2023**, *9*, 23–40. [\[CrossRef\]](#) [\[PubMed\]](#)
39. Thaichon, P.; Phau, I.; Weaven, S. Moving from multi-channel to Omni-channel retailing: Special issue introduction. *J. Retail. Consum. Serv.* **2022**, *65*, 123–145. [\[CrossRef\]](#)
40. Bashir, M.; Naqshbandi, M.M.; Farooq, R. Business model innovation: A systematic review and future research directions. *Int. J. Innov. Sci.* **2020**, *12*, 457–476. [\[CrossRef\]](#)
41. Winkler, M.; Wegner, D.; Macagnan, C.B. The Maturity of Strategic Networks’ Governance: Proposal of an Analysis Model. *Adm. Sci.* **2023**, *13*, 134. [\[CrossRef\]](#)
42. Bharadwaj, A.; El Sawy, O.A.; Pavlou, P.A.; Venkatraman, N. Digital business strategy: Toward a next generation of insights. *MIS Q.* **2013**, *37*, 471–482. [\[CrossRef\]](#)
43. Jorzik, P.; Klein, S.P.; Kanbach, D.K.; Kraus, S. AI-driven business model innovation: A systematic review and research agenda. *J. Bus. Res.* **2024**, *182*, 114764. [\[CrossRef\]](#)
44. Ferlito, R.; Faraci, R. Business model innovation for sustainability: A new framework. *Innov. Manag. Rev.* **2022**, *19*, 222–236. [\[CrossRef\]](#)
45. Rintamäki, T.; Saarijärvi, H. An integrative framework for managing customer value propositions. *J. Bus. Res.* **2021**, *134*, 754–764. [\[CrossRef\]](#)
46. Gasparin, M.; Quinn, M.; Green, W.; Saren, M.; Conway, S. Stories of value: Business model innovation adding value propositions articulated by Slow Storytelling. *J. Bus. Res.* **2022**, *149*, 101–111. [\[CrossRef\]](#)
47. Arkadan, F.; Macdonald, E.K.; Wilson, H.N. Customer experience orientation: Conceptual model, propositions, and research directions. *J. Acad. Mark. Sci.* **2024**, *52*, 1560–1584. [\[CrossRef\]](#)
48. Xie, X.; Han, Y.; Anderson, A.; Ribeiro-Navarrete, S. Digital platforms and SMEs’ business model innovation: Exploring the mediating mechanisms of capability reconfiguration. *Int. J. Inf. Manag.* **2022**, *65*, 22–45. [\[CrossRef\]](#)
49. Liu, X.; Sun, Y.; Zhou, S.; Li, Y.; Zhuang, S. Research on time-value-oriented business model innovation path in life services enterprises and its impact on customer perceived value. *Humanit. Soc. Sci. Commun.* **2024**, *11*, 548–560. [\[CrossRef\]](#)
50. Baloglu, S. Dimensions of Customer Loyalty: Separating Friends from Well Wishers. *Restaur. Adm. Q.* **2002**, *43*, 47–59. [\[CrossRef\]](#)
51. Cronin, J.; Taylor, S. Measuring Service Quality: A Reexamination and Extension. *J. Mark.* **1992**, *56*, 55–68. [\[CrossRef\]](#)
52. McAleander, J.; Kaldenberg, D.; Koenig, H. Service quality measurement. *J. Health Care Mark.* **1994**, *14*, 34–40. [\[PubMed\]](#)
53. Javadein, S.; Amir, K.; Estiri, M. Customer loyalty in the sport services industry: The role of service quality, customer satisfaction, commitment and trust. *J. Hum. Sci.* **2008**, *5*, 1–19.
54. Tian-Cole, S.; Crompton, J. A conceptualization of the relationships between service quality and visitor satisfaction, and their links to destination selection. *Leis. Stud.* **2003**, *22*, 65–80. [\[CrossRef\]](#)
55. Mahmoud, M.; Hinson, R.; Anim, P. Service innovation and customer satisfaction: The role of customer value creation. *Eur. J. Innov. Manag.* **2018**, *21*, 402–422. [\[CrossRef\]](#)

56. Zott, C.; Amit, R.; Massa, L. The Business Model: Recent Developments and Future Research. *J. Manag.* **2011**, *37*, 1019–1042. [\[CrossRef\]](#)
57. Tahir, N.; Irum, A.; Khaliq, C. The Impact of Innovation on Customer Satisfaction and Brand loyalty: A Study of the Students of Faisalabad. *Int. J. Manag. Organ. Stud.* **2013**, *2*, 62–68.
58. Marei, A.; Al-Haddad, S.; Daoud, L.; Habashneh, A.; Fariz, R.; Aldamisi, R. The impact of innovation on customer satisfaction in the commercial banks: Business performance as a mediating variable. *Uncertain Supply Chain Manag.* **2022**, *10*, 887–894. [\[CrossRef\]](#)
59. Kandampully, J.; Suhartanto, D. Customer loyalty in the hotel industry: The role of customer satisfaction and image. *Int. J. Contemp. Hosp. Manag.* **2000**, *12*, 346–351. [\[CrossRef\]](#)
60. Cossío-Silva, F.-J.; Revilla-Camacho, M.-Á.; Vega-Vázquez, M.; Palacios-Florencio, B. Value co-creation and customer loyalty. *J. Bus. Res.* **2016**, *69*, 1621–1625. [\[CrossRef\]](#)
61. Keiningham, T.; Aksoy, L.; Bruce, H.L.; Cadet, F.; Clennell, N.; Hodgkinson, I.R.; Kearney, T. Customer experience driven business model innovation. *J. Bus. Res.* **2020**, *116*, 431–440. [\[CrossRef\]](#)
62. Zott, C.; Amit, R. Business Model Design: An Activity System Perspective. *Long Range Plann.* **2010**, *43*, 216–226. [\[CrossRef\]](#)
63. Čater, T.; Čater, B. Product and relationship quality influence on customer commitment and loyalty in B2B manufacturing relationships. *Ind. Mark. Manag.* **2010**, *39*, 1321–1333. [\[CrossRef\]](#)
64. Yi, L.; Khan, M.S.; Safeer, A.A. Firm innovation activities and consumer brand loyalty: A path to business sustainability in Asia. *Front. Psychol.* **2022**, *13*, 942048. [\[CrossRef\]](#)
65. Woo, H.; Kim, S.J.; Wang, H. Understanding the role of service innovation behavior on business customer performance and loyalty. *Ind. Mark. Manag.* **2021**, *93*, 41–51. [\[CrossRef\]](#)
66. Hahn, T.; Pinkse, J.; Preuss, L.; Figge, F. Tensions in Corporate Sustainability: Towards an Integrative Framework. *J. Bus. Ethics* **2015**, *127*, 297–316. [\[CrossRef\]](#)
67. Siew, R.Y.J. A review of corporate sustainability reporting tools (SRTs). *J. Environ. Manag.* **2015**, *164*, 180–195. [\[CrossRef\]](#)
68. Garcia, S.; Cintra, Y.; Torres, R.d.C.S.R.; Lima, F.G. Corporate sustainability management: A proposed multi-criteria model to support balanced decision-making. *J. Clean. Prod.* **2016**, *136*, 181–196. [\[CrossRef\]](#)
69. Batista, A.A.; Francisco, A.C. Organizational Sustainability Practices: A Study of the Firms Listed by the Corporate Sustainability Index. *Sustainability* **2018**, *10*, 226. [\[CrossRef\]](#)
70. Evans, S.; Vladimirova, D.; Holgado, M.; Van Fossen, K.; Yang, M.; Silva, E.A.; Barlow, C.Y. Business Model Innovation for Sustainability: Towards a Unified Perspective for Creation of Sustainable Business Models. *Bus. Strateg. Environ.* **2017**, *26*, 597–608. [\[CrossRef\]](#)
71. Schaltegger, S.; Lüdeke-Freund, F.; Hansen, E. Business Cases for Sustainability: The Role of Business Model Innovation for Corporate Sustainability. *Int. J. Innov. Sustain. Dev.* **2012**, *6*, 95–119. [\[CrossRef\]](#)
72. Geissdoerfer, M.; Vladimirova, D.; Evans, S. Sustainable business model innovation: A review. *J. Clean. Prod.* **2018**, *198*, 401–416. [\[CrossRef\]](#)
73. Oliver, R. Whence consumer loyalty? *J. Mark.* **1999**, *63*, 33–45. [\[CrossRef\]](#)
74. Ball, D.; Santos, P.; Machás, A. The role of communication and trust in explaining customer loyalty: An extension to the ECSI model. *Eur. J. Mark.* **2004**, *38*, 1272–1293. [\[CrossRef\]](#)
75. Aslam, W.; Tariq, A.; Arif, I. The Effect of ATM Service Quality on Customer Satisfaction and Customer Loyalty: An Empirical Analysis. *Glob. Bus. Rev.* **2019**, *20*, 1155–1178. [\[CrossRef\]](#)
76. Beerli, A.; Martín, J.D.; Quintana, A. A model of customer loyalty in the retail banking market. *Eur. J. Mark.* **2004**, *38*, 253–275. [\[CrossRef\]](#)
77. Kaura, V.; Durga Prasad, C.S.; Sharma, S. Service quality, service convenience, price and fairness, customer loyalty, and the mediating role of customer satisfaction. *Int. J. Bank Mark.* **2015**, *33*, 404–422. [\[CrossRef\]](#)
78. Cassel, C.; and Eklöf, J.A. Modelling customer satisfaction and loyalty on aggregate levels: Experience from the ECSI pilot study. *Total Qual. Manag.* **2001**, *12*, 834–841. [\[CrossRef\]](#)
79. Casaló, L.V.; Flavián, C.; Guinalíu, M. The role of satisfaction and website usability in developing customer loyalty and positive word-of-mouth in the e-banking services. *Int. J. Bank Mark.* **2008**, *26*, 399–417. [\[CrossRef\]](#)
80. Setó-Pamies, D. Customer loyalty to service providers: Examining the role of service quality, customer satisfaction and trust. *Total Qual. Manag. Bus. Excell.* **2012**, *23*, 1257–1271. [\[CrossRef\]](#)
81. Edvardsson, B.; Johnson, M.; Gustafsson, A.; Strandvik, T. The effects of satisfaction and loyalty on profits and growth: Products versus services. *Total Qual. Manag. Bus. Excell.* **2000**, *11*, 917–927. [\[CrossRef\]](#)
82. Puglieri, F.N.; Salvador, R.; Romero-Hernandez, O.; Escrivão Filho, E.; Piekarski, C.M.; de Francisco, A.C.; Ometto, A.R. Strategic planning oriented to circular business models: A decision framework to promote sustainable development. *Bus. Strateg. Environ.* **2022**, *31*, 3254–3273. [\[CrossRef\]](#)
83. De Angelis, R.; Morgan, R.; De Luca, L.M. Open strategy and dynamic capabilities: A framework for circular economy business models research. *Bus. Strateg. Environ.* **2023**, *32*, 4861–4873. [\[CrossRef\]](#)

84. González-Viralta, D.; Veas-González, I.; Egaña-Bruna, F.; Vidal-Silva, C.; Delgado-Bello, C.; Pezoa-Fuentes, C. Positive effects of green practices on the consumers' satisfaction, loyalty, word-of-mouth, and willingness to pay. *Heliyon* **2023**, *9*, e20353. [CrossRef]
85. Berns, M.; Townend, A.; Khayat, Z.; Balagopal, B.; Reeves, M.; Hopkins, H.S.; Kruschwitz, N. The Business of Sustainability: What It Means to Managers Now. *MIT Sloan Manag. Rev.* **2009**, *51*, 20–26.
86. Eakuru, N.; Mat, N.K.N. The Application of Structural Equation Modeling (SEM) in Determining the Antecedents of Customer Loyalty in Banks in South Thailand. *Bus. Rev.* **2008**, *10*, 129–139. Available online: <https://api.semanticscholar.org/CorpusID:167327296> (accessed on 12 February 2025).
87. Buchanan, R.; Gillies, C. Value managed relationships: The key to customer retention and profitability. *Eur. Manag. J.* **1990**, *8*, 523–526. Available online: <https://api.semanticscholar.org/CorpusID:153745790> (accessed on 20 November 2024). [CrossRef]
88. Dwivedi, R.K.; Lohmor, S.; Dixit, R.S.; Sahiba, Z.; Naik, S. The Customer Loyalty vs. Customer Retention: The Impact of Customer Relationship Management on Customer Satisfaction. *Web Intell.* **2024**, *22*, 1–18. [CrossRef]
89. Mustonen, N.; Karjaluo, H.; Jayawardhena, C. Customer Environmental Values and Their Contribution to Loyalty in Industrial Markets. *Bus. Strateg. Environ.* **2016**, *25*, 512–528. [CrossRef]
90. Agu, E.; Iyelolu, T.; Idemudia, C.; Ijomah, T. Exploring the relationship between sustainable business practices and increased brand loyalty. *Int. J. Manag. Entrep. Res.* **2024**, *6*, 2463–2475. [CrossRef]
91. Moisesescu, O.-I.; Gică, O.-A. The Impact of Environmental and Social Responsibility on Customer Loyalty: A Multigroup Analysis among Generations X and Y. *Int. J. Environ. Res. Public Health* **2020**, *17*, 6466. [CrossRef] [PubMed]
92. Khanna, T.; Yafeh, Y. Business Groups in Emerging Markets: Paragons or Parasites? *J. Econ. Lit.* **2007**, *45*, 331–372. [CrossRef]
93. Claessens, S.; Djankov, S.; Lang, L.H.P. The separation of ownership and control in East Asian Corporations. *J. Financ. Econ.* **2000**, *58*, 81–112. [CrossRef]
94. Guo, H.; Guo, A.; Ma, H. Inside the black box: How business model innovation contributes to digital start-up performance. *J. Innov. Knowl.* **2022**, *7*, 100188. [CrossRef]
95. Kline, R. *Principles and Practice of Structural Equation Modeling*; Guilford Publications: New York, NY, USA, 2010.
96. Hair, J.; Black, W.; Babin, B.; Anderson, R. *Multivariate Data Analysis*, 7th ed.; Prentice-Hall: Hoboken, NJ, USA, 2010.
97. Instituto Nacional de Estadísticas y Censos Encuesta Multi propósito: Tecnologías de la Información y Comunicación. Quito. 2020. Available online: https://www.ecuadorencifras.gob.ec/documentos/web-inec/Estadisticas_Sociales/TIC/2020/202012_Principales_resultados_Multiproposito_TIC.pdf (accessed on 10 November 2024).
98. Fornell, C.; Wernerfelt, B. Defensive marketing strategy by customer complaint management: A theoretical analysis. *J. Mark. Res.* **1987**, *24*, 337–346. [CrossRef]
99. Marcoulides, K.M.; Raykov, T. Evaluation of Variance Inflation Factors in Regression Models Using Latent Variable Modeling Methods. *Educ. Psychol. Meas.* **2018**, *79*, 874–882. [CrossRef]
100. Gujarati, D. *Basic Econometrics*, 2nd ed.; McGraw Hill: Columbus, OH, USA, 1988; ISBN 978-0-07-233542-2.
101. Anzules-Falcones, W.; Novillo-Villegas, S. Innovation Capacity, Entrepreneurial Orientation, and Flexibility: An Analysis from Industrial SMEs in Ecuador. *Sustainability* **2023**, *15*, 10321. [CrossRef]

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.