



# "Literature Review: Customer Relationship In New Product Development"

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## ARTICLE INFO

## ABSTRACT

Meeting customer expectations are vital for any firm to grow. Engaging the customers in any new product development provides customer satisfaction and connects to the society. Based on the necessity, customer engagement can be made online through social media or in person. However, involving customer's, receiving their feedback on, and functioning the product attracts to many customers, users, and stakeholders. Having good customer interaction does not mean the customers stick to the brand or the product. A continuous effort must be made by the consumers to have a strong connect with the customers to enhance the growth of the business. There are many variables for consumers to drive on this customer interaction and it varies from each customer. Customers should feel overwhelmed with the time, money and effort spent in purchasing the product. Customer engagement and involvement in any new product development process is crucial. For the product to be launched as per the schedule, meeting the customer requirements needs good support from supplier's as they play an important role in supplying the components for assembly into the product. A good customer supplier relation helps in strengthening the firm's performance, delivering a quality product with subsided transactional cost. Many studies have been made keen on the customer relationship on new product development, therefore many researchers proposed that customer satisfaction could be considered as the major component for a successful launch of a product to market. The study in this paper provides a thorough review of customer relationship with supplier and their interaction with consumers on a new product development and how companies adapt suitable approaches to engage and involve customers.

**Keywords:** New product development, Customer involvement, Customer engagement, Market, Process, Product, Relationship, Customer-supplier, Innovation.

## INTRODUCTION

In today's technologically advanced world, we depend on a stable and uninterrupted power supply in datacenters, medical facilities, computers, industries, and institutions. The need of UPS is predominant during power outages, surges, and fluctuations that can lead to data loss and other disruptions. The power backup provided by a UPS typically can add flexibility on the customer side, particularly when combined with energy storage. This helps in consumption to hours when demand is lower.

With the expanding need for backup power, the recent studies showed that the UPS market is expected to reach close to \$11.38 billion by 2030. However, many organizations that depend on UPS technology are not aware of its full potential. So, the UPS industries should be encouraged and empowered to utilize their asset to support the grid and move to a sustainable energy in future. With the interaction of customers, the industries can understand the dynamics in the market and future enhancements to operate in more efficient and reliable way to win the customers. Customer gets satisfied if their requirements can be met by rich quality products (Febriani et al, 2023; Mariam & Ramli, 2022). The Customer satisfaction will have enormous impact on emotional relationship of customer on the product (Mariam et al, 2022; Mariam & Ramli, 2020; Supiati et al, 2021). In other way, decent customer relationship will make business to survive in the competitive market strong (Bachtiar et al, 2023; Rumaidlany et al, 2022).

During COVID-19 pandemic people are forced to work from home and avoid gatherings. This encouraged orced people to stay at home and avoid crowds, this encouraged the interest of trading of goods and services online

(Dewi & Ramli, 2023; Yusuf, 2021). By providing services to the customers, consumers build relationship with customers known as customer engagement.

The objective of the new product development was to create an outstanding customer value product which customer finds consistently useful. This can be achieved by using value creation approach. First method of value creation strategy is to create value by meeting customer needs with innovation. According to Sahinli and Kilinic (2013), innovation is creating new design ideas to product, process or other aspects of operations enterprise which bring high value for customers and clients. Understanding the needs and problems of customer is one of the success factors for successful marketing of any new product. Building customer relationship in new product development process not just improves the development process but also saves time, productivity, and effectivity. Any product development in industries like UPS need customer and supplier interaction. Good customer-supplier relationship helps in development of a product and contribute to innovation (Li et al, 2015). The review of this paper provides systematic analysis of the following components to enhance the customer relationship.

- Customer engagement
- Customer Involvement
- Customer-supplier relationship
- Innovative solution in Power supply

### Need for the study

This research caters a concise review of literature on customer engagement, customer involvement and their relationship with supplier and how it's important for the development of new product. Also, this research explains the essential factors that are involved in establishing the customer relationship and how it enhances the launch of reliable product into market.

### Research Methodology

To examine the literature, a thorough search has been made from various publishers like wise Springer, SAGE, Science Direct, IEEE, Taylor and Francis, Emerald, search engine Google scholar and some articles. The criteria followed for selection of research publications include years between 2001 to 2023. The various key words included for search are as follows:

1. 'Customer engagement'
2. 'Customer involvement'
3. 'Customer relationship'
4. 'Supplier involvement'
5. 'Consumer engagement'
6. 'Customer supplier relationship'
7. 'Consumer supplier relationship'
8. 'Innovation in power supply'
9. other relevant searches

The research papers are sorted based on the year and reputed journals in round 1. After thorough screening of 120 papers, 22 papers were removed from the total list. In round 2, further screening made based on duplication of data, quality literature and area of study and eliminated another 19 papers from the total search result. A systematic literature review is prepared from the total list of 79 papers.

## SYSTEMATIC LITERATURE REVIEW

### Customer Engagement

(Gallup, 2001). Companies invest majority of the money for the customization of the product and brand to fulfil customer needs and enhance customer engagement. The aim is to understand the company's interest on transaction of money concerning their product and the brand.

(Richard P & Utpal M, 2006). The customers participation with small group of users investing in brand on collective tasks can be decided based on social and psychological variables. The important factors of social and psychological have given less significance by the marketers. Evaluating and deciding the collective activities can help to users understand the contribution of these variables in brand communities. Participating and sharing customers experience plays a prominent role in these circumstances.

(Peter C, Werner J, & Manfred, 2010). Customer experiences are enhanced by setting strategies for non-purchase behavior of customer via requesting them to proactively involve and rate the new enterprises. This helps to focus on firm beyond the transactions and help to improve the value, called as 'Customer lifetime value' concept. Avoiding customer engagement leads to degrade the current position of the firm (So, King, & Sparks, 2012). Other customer value metrics introduced like customer engagement value, customer influence value and customer referral value can help to promote the products to a larger extent.

(Forbes, 2010). A well-established customer relationship fosters a positive experience, sense of belongingness and willingness to continue with the brand. This demonstrates the active participation of customer and loyalty towards the brand and emotional connection with the business. (Brodie et al, 2013). Many scholars agree that

customer's experience is multidimensional concepts, and it involves following aspects: emotional, cognitive, and physical.

(Meylani Tuti & Viki Sulistia, 2022). Customer engagement effects customer satisfaction, brand trust and brand loyalty and it was proved that customer satisfaction is influenced by customer engagement. In other ways, both customer satisfaction and customer engagement substantially influenced brand trust. The brand loyalty is also influence by brand trust. Also, indirectly customer engagement impacts brand loyalty through brand trust as well as customer satisfaction. The customers therefore feel satisfied with the product, trust the brand, and continue their relationship with the brand.

**Table 1. Customer Engagement Concept Overview:**

Definition	Author	Concept
Firms have spent surplus money to customize their product and brand to meet the customer expectations and encourage customer engagement.	Gallup (2001)	Customer engagement
The participation of customer's along with small group of consumers who invest in brand in the collective actions is elucidated by two variables: social and psychological.	Richard P & Utpal M (2006)	Customer engagement
The behaviors of the customer engagement do more than expected transactions and are defined as a customer's behavioral indicators that focus on company, beyond procurement, arise from significant motivational drivers.	Peter C, Werner J, & Manfred (2010)	Customer engagement
A sophisticated level of customer engagement exhibits a deeper emotional connection that a user has with the product along with brand, and the willingness to sustain such relationship.	Forbes (2010)	Customer engagement
Ineffective customer engagement initiatives might worse the present company's position.	So, King, & Sparks (2012)	Customer engagement
Many authors agree to the point that the customer engagement consists of cognitive, emotional, and behavioral aspects. However, there is still no assurance about these aspects.	Brodie et al. (2013)	Customer engagement
Customer engagement is defined as the level of customer's physical, emotional, and cognitive presence of customer and their relationship with service business.	Patterson et al. (2016)	Customer engagement
The Customer Engagement significantly influence customer satisfaction, customer satisfaction influence brand trust, and brand trust influence the brand loyalty.	Meylani Tuti & Viki Sulistia (2022)	Customer engagement

### Customer Involvement

Nambisan (2002). Customers in new product development act as collaborators and take initiative to communicate relevant information which is required by companies. In other way, customers involvement enables new ideas and bring innovation into the market. Joshive and Sharma (2004). Customer input in the product development positively improves the performance of the product and the development teams get benefited interms of knowledge, tools, skills etc. The knowledge shared by the customer helps the development team to understand the current trends and the areas of improvement.

Yli-Renko and Janakiraman (2008). The customer involvement and their impact on the performance of new product development depends on the customers portfolio as well their size. Managing activities of new product development as well as resources are very important for any firm. With the innovation and new products coming into market, old products are killed due to lacking quality, innovation and performance, hence properly managed portfolio creates value to the business. Carbonell et al. (2009). Customer involvement in new product development (NPD) influences the quality of the product. This improves the products sales performance. Customer satisfaction and faithfulness are linked intricately with the product quality. Launching a quality product, builds trust and wins the customer.

Fuchs and Schreler (2011). Customer engagement and integration in new product development process boosts the level of customer satisfaction and the intent to buy the products from the companies. These days customer is not only buying the products but also get involved in the product development process in different stages, from idea generation to the development of end product. The small firms need more involvement of potential customers in the new product development process for the financial benefit of the firms.

Mahr and Lievens (2012). Involving potential customers contributes to the new product development phases enhance the value of the product compared to other customers. Active customer involvement and collecting feedback from the customers helps to generate ideas, constantly innovate, and stay ahead in the market (Anning Dorson, 2018).

Ifeanyi Patrick Nwaokorie (2020), Customer involvement for firms, is the essential factor in new product development to attract new customers, create value and foster firm's business success. During pandemic situations of COVID-19, development of clinical research was very essential. Though many challenges are faced

on ethical issues by researchers during the development process, still involving customers and collecting the feedback helped to explore the further research process (N. Straiton,2020).

**Table 2. Customer Involvement Concept Overview:**

Definition	Author	Concept
From the perspective of development of a new product and services, the involvement of customer acts as a source of innovation.	Nambisan (2002)	Customer involvement
The performance of the product is positively related with the knowledge developed by the customer. It helps the customer to advice on the new product development	Joshive and Sharma (2004)	Customer involvement
The impact of customer involvement in NPD process relies on the customers portfolio and their size. The more the customers portfolio, the higher the products	Yli-Renko and Janakiraman (2008)	Customer involvement
The product quality and innovation are influenced by the customer involvement in new product development. This improves financial health of the business.	Carbonell et al. (2009)	Customer involvement
Customer integration in new product development enhances customer satisfaction levels and fosters willingness to buy the products from the companies.	Fuchs and Schreler (2011)	Customer involvement
The potential customer contributes to improve value of the product in comparison with further customers and facilitate in the new product development purposes.	Mahr and Lievens (2012)	Customer involvement
Active customer involvement in the new product development significantly influenced the outlook of the enterprises.	Anning Dorson (2018)	Customer involvement
Customer involvement in the development of a product is essential for the firms to sustain, innovate and to enhance the customer relation management.	Ifeanyi Patrick Nwaokorie (2020)	Customer involvement
Dring pandemic circumstances of COVID-19 in Australia where many ethical issues are forecasted, customer involvement broadly helped researchers from clinal development research team to discover opportunities to support further in the research process across Australia.	N. Straiton (2020)	Customer involvement

### Customer-Supplier relationship

Hakansson, Snehota and Wilson (1995). For the firms to be competitive, they should understand the market dynamics and start working with a clear view. Well organized process in supply chain management facilitates, companies to actively participate on establishing good relationship with customers as well as suppliers. This was termed as customer supplier relationship (Matsoso & Benedict, 2014).

Shin et al, (2000). Customers can be integrated in all stages of a new product development. The direct communication of customer with supplier is vital to develop rich quality of product (Mishra, 2011).

The various activities involved in supply chain process should be managed well by the supply chain management team due to long lead times. These activities include, supply-demand planning, preparation of material, production planning, service, inventory control, maintenance, distribution, and delivery to the enduser. Hald et al, (2009). The trust developed between customer and supplier has a significant impact on the delivery and services performance with minimum lead time negotiating the cost of the components (Shoghari & Abdallah, 2016).

Many firms embrace collaboration approach to integrate and build customers and supplier relationship (Shou et al, 2013). Good customer supplier relationship allows exchange of ideas and feedback and enables to launch quality product early in the market, building trust and customer satisfaction (Benson James Lyimo and Nelson Kwayu, 2022). This is possible by an efficient and effective operation of supplier process, in a way consumers get benefited working with selected suppliers. It facilitates friendly, tolerant relationship between customers and suppliers (Zhou et al, 2014). An effective customer and supplier relationship has a positive impact on customer satisfaction (Kasomi, 2020).

**Table 3. Customer-Supplier relationship Concept Overview:**

Definition	Author	Concept
It is important for firms to understand the dynamics and structure of the customer supplier relationship to have	Hakansson, Snehota and Wilson, (1995)	Customer supplier relationship

clear view of the current position in the market and their relationships.		
According to Shine et al, (2000), Customer supplier relationship is vital for the success of the manufacturing firm's performance and their sustenance.	Shin et al, (2000)	Customer supplier relationship
The negotiation of cost of the items and the schedule of delivery may be managed easily by the customer by maintaining a close relationship with the suppliers.	Hald et al, (2009)	Customer supplier relationship
The necessity of customer supplier relationship is due to high competition in market, buyer demands and expectation of high-quality products.	Mishra, (2011)	Customer supplier relationship
Most companies adopt collaboration relationship between customer and supplier which is a Japanese approach to benefit and build trust between themselves.	Shou et al, (2013)	Customer supplier relationship
Having limited suppliers permits smooth operation as it is simpler to work with suppliers when both customer and supplier maintain a decent relationship.	Zhou et al, (2014)	Customer supplier relationship
Firms focused on setting up strong relationship with suppliers to ensure effective process in supply chain management. This is named as customer supplier relationship.	Matsoso & Benedict, (2014)	Customer supplier relationship
The performance of the supply chain management (SCM) was enhanced with the establishment of customer supplier relationship. This enabled SCM to deliver goods and services faster to the customers.	Shoghari & Abdallah, (2016)	Customer supplier relationship
Effective customer supplier relationship has impact on customer satisfaction.	Kasomi (2020)	Customer supplier relationship
Customer supplier relationships permits exchange of ideas and feedback. It enables to deliver quality product to market, build trust and win customers	Benson James Lyimo and Nelson Kwayu, (2022)	Customer supplier relationship

### **Innovation solutions in Power supplies**

Innovation solutions in power supplies helps in satisfying requirements of many industries. Embracing innovation solutions improves the efficiency and provide reliable and viable power distribution. Some studies associated to this area are described in this paper.

Chun T. Rim et al, (2013). The study made on advances in wireless power transfer (WPT) technologies particularly on literature review, case study and assessment on technology found improvements in compact, range, safety, efficiency, and components integration of WPT. It identified wide range of applications in healthcare, industries, automation, and electronics. The study also emphasizes on the challenges, potential transformations in the restructuring on modern power utilization.

Mohamed A.A.Wahab et al, (2018). The study focused on investigation of smart grids and the role of smart grids in addressing the challenges in power supply, grid reliability enhancement, improve efficiency and maintain resilience. Through comprehensive literature review, interviews, case studies and surveys conducted the study made a conclusion stakeholder collaboration and through reference of prioritized investments help in accelerating the deployment of smart grids and maximize the advantage of determining the future of power distribution and energy supply.

Ramesh Babu et al, (2019). In recent years, there were numerous advancements made in power electronics. Their applications in renewable energy systems display the effect of power electronics on distribution, grid stability and energy distribution. The study on this paper addresses the confronts and the opportunities in the field of power electronics, importance of innovation and how it helps in progressing towards a greater clean energy.

A. Beloglazov et al, (2020). The paper reviewed the innovation solutions on power supply for data centers using a systematic methodology including literature review, interviews with experts and case studies. The solutions identified includes higher efficiency uninterruptable power supply (UPS) systems, modular Power distribution units (PDUs), Power management systems (PMS), and various Energy storage systems (ESS). The study has highlighted the valuable insights of research and how the innovation solution improves the performance and sustainability of the data centers.

### **DISCUSSION OF THE RESULTS**

This paper provides a theoretical study on customer relationship and provides a framework of the components which help to achieve a good customer relationship. This review paper also emphasizes the impact of customer relationship on new product development process leading to customer satisfaction. The components stressed

in this paper assists to further evaluate on customer relationship. Customer engagement is the first component which focus on maintaining customer relationship both online and offline.

The second component paws a way to research on benefits of customer involvement in new product development as codeveloper and co-creator to build trust and loyalty on product. The third factor poses a question on the supplier process and how customer supplier relationship acts as a powerful tool for the early launch of a product with high quality.

### **SCOPE OF THE RESEARCH**

This study provides a reference of customer relationship which helps the researchers to further research and produce results. The review on impact of customer relationship on new product development addresses present market scenario. The research made in this paper is limited to only theoretical study, and on empirical study it requires more research reference to each component described in this paper. The customer relationship is very dynamic in subject and depends on many factors. Other factors influencing the customer relationship on new product development can be determined based on psychological, social, and behavioural aspects.

### **CONCLUSION**

A successful new product development firm should have competence to develop new products and respond to customer requirements and gain competitive advantage from market. Maintaining good Customer relationship and exchange of information from customer helps the firms to deliver a quality product. All this means, customer relationship strategy helps customers to facilitate with firms on the various requirements of the product. Customer involvement on a new product development process can help to evaluate and study the design elements that further benefits the firms to build trust in their products.

This paper reviews the literature on customer engagement, customer involvement and customer-supplier relationship. This aim of this research paper is to provide a theoretical framework to further research on various components which help customer satisfaction and retention of any new product development firm to be successful in the competitive market.

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### **Conflict of Interest**

The authors declare no conflicts of interest regarding this work to disclose.

### **Author Contributions**

Research scholar Geetha H conducted the study under the guidance and complete support of Dr Purna Prasad Arcot.

### **Ethics Approval**

This study was reviewed and approved by the Ethics Committee at the School of Management, CMR University, located at HRBR Layout, Kalyan Nagar, Bengaluru-560043, Karnataka, India. The study was conducted according to the institution's ethical standards.

### **REFERENCES**

1. Afifah L, Chan A, and Nirmalasari H, The Effect of Customer Engagement social media to Brand Loyalty Indosat Ooredoo. *Ekonomi Bisnis*, paper 25(1) (2020) 38.
2. Anwar S. M, Influence of Service Quality, Customer Satisfaction and Commitment to Customer Loyalty among Banking Consumer. *Media Pengkajian Manajemen Dan Akuntansi*, paper 21(2) (2022) 163–170.
3. Bachtiar, N.K Setiawan, A Prastyan, G.A. et al, Business resilience and growth strategy transformation post crisis. *J Innov Entrep*, paper 12 (2023) 77.

4. Bacile T.J, Ye C, and Swilley E, From firm-controlled to consumer-contributed: consumer coproduction of personal media marketing communication, *Journal of Interactive Marketing*, Elsevier B.V. 28(2) (2014) 117-133.
5. Bergman B, and Klefsjo B, *Quality from Customer Needs to Customer Satisfaction*, McGraw-Hill, London
6. Brodie R. J, Hollebeek L. D, Jurić B, and Ilić, A, Customer engagement: Conceptual domain, fundamental propositions, and implications for research, *Journal of Service Research*.14(3) (2011) 252–271.
7. Bruhn M, *Relationship Marketing, Management of Customer Relationships*, Prentice-Hall/FT, Harlow.
8. Dulmaleki K. and Ahmedian S, The Relationship Between Product Characteristic, Customer and Supplier Involvement and New Product Development. *Procedia Economics and Finance*, paper (36) (2016)147-156.
9. Eage-Hellman J, and Frida Lind A. P, Customer Involvement in Product Development an Industrial Network Perspective, *Journal of Business-to-Business Marketing*. 21(4) (2014) 257-276.
10. Finch B.J, Internet discussions as a source for consumer product customer involvement and quality information, *Journal of Operations Management*.17 (1999) 535-56.
11. Gales L, and Mansour-Cole D, User involvement in innovation projects, *Journal of Engineering and Technology Management*.12(1/2) (1995) 77-109.
12. Griffin, *Relationship Marketing, Customer Satisfaction, Customer Commitment Dan Customer Loyalty (Studi Pada Sebuah Bank Nasional Di Denpasar)*. *Buletin Studi Ekonomi*, paper18(1) (2013) 9–25.
13. Gruner KE, and Homburg C, Does Customer Interaction Enhance New Product Success, *Journal of Business Research*. 49 (2000)1-14.
14. Hanna N, Ayers D.J, Ridnour R.E, and Gordon G.L., New product development practices in consumer versus business products organizations, *Journal of Product & Brand Management*. 4(1) (1995) 33-55
15. Harzaviona Y, and Syah T. Y. R, Effect of Customer Satisfaction on Customer Loyalty and Marketing Organization Performance in B2B Market Over Heavy Equipment Company, *Journal of Multidisciplinary Academic*. 4(4) (2020) 242–249.
16. Hemetsberger A, and Godula G, Virtual Customer Integration in New Product Development in Industrial Markets: The QLL Framework, *Journal of Business-to-Business Marketing*.14 (2) (2007) 1-40.
17. Ivkovic N, Beyond the pandemic – a new era of consumer behavior. 65th International Scientific Conference on Economic and Social Development – Online Conference, paper (2021) 6-17.
18. Kaulio MA, Customer, consumer, and user involvement in product development: A framework and a review of selected methods. *Total Quality Management*, paper 9 (1998) 141-9.
19. Lagrosen S, Customer involvement in new product development: A relationship marketing perspective, *European Journal of Innovation Management*. 8 (2005) 424-36.
20. Larsson R, and Bowen D.E, Organization, and customer: managing design and coordination of services, *Academy of Management Review*. 14 (1998) 213-33.
21. Mariam S, and Ramli A. H, Pengenalan Digital Marketing E-Katalog bagi UMKM Binaan Jakpreneur. *Jurnal Komunitas: Journal Pengabdian Kepada Masyarakat*. 5(1) (2022) 74–83.
22. Mariam S, and Ramli A. H, Peran Mediasi Strategic Change Management pada Usaha Mikro Kecil dan Menengah dalam Kondisi Pandemi Covid-19, *Prosiding Seminar Stiami*. 7(2) (2020) 46–52.
23. Matzler K, Hinterhuber H.H, Bailom F, and Sauerwein E, How to delight your customers, *Journal of Product & Brand Management*. 5(2) (1996) 6-18.
24. Md Karim Rabiul, Pornpisanu Promsivapallop, Rashed Al Karim, Md Ariful Islam, Ataul Karim Patwary, Fostering quality customer service during Covid-19: The role of managers' oral language, employee work engagement, and employee resilience, *Journal of Hospitality and Tourism Management*, 53 (2022) 50-60.
25. Michaelidou N, and Dibb S, Consumer involvement: A new perspective, *The Marketing Review*. 8(1) (2008) 83-99.
26. Milaković I.K, Purchase experience during the COVID-19 pandemic and social cognitive theory: The relevance of consumer vulnerability, resilience, and adaptability for purchase satisfaction and repurchase, *International Journal of Consumer Studies*. 45 (2021) 1425-1442.
27. Morgan T, Obal M, and Anokhin S, Customer Participation and New Product Performance: Towards the Understanding of the Mechanisms and Key Contingencies, *Research Policy*. 47 (2) (2018) 498-510.
28. Naeem H.M, and Di Maria E, Customer participation in new product development: an Industry 4.0 perspective, *European Journal of Innovation Management*. 25(6) (2022) 637-655.
29. Nambisan S, Designing virtual customer environments for new product development: toward a theory, *Academy of Management Review*. 27(3) (2002) 392-413.
30. Neale M.R, and Corkindale, D.R, Co-developing products: involving customers earlier and more deeply, *Long Range Planning*. 31(3) (1998) 418-25.
31. Ning- Dorson T, Customer Involvement Capabiltiy and Service Firm Performance: The Mediating Role of Innovation, *Journal of Business Resource*. (86) (2018) 269-280.
32. Paramartha M. N. A, and Syah T. Y. R, The Influence of Customer Satisfaction on Customer Loyalty and Marketing Organization Performance Over Outdoor Advertising Companies, *Journal of Multidisciplinary Academic*. 4(4) (2020) 234–241.
33. Petter Stenmark, Mats Tinnsten, Håkan Wiklund, Customer involvement in product development: Experiences from Scandinavian outdoor companies, *Procedia Engineering*. (13) (2011) 538-543.

34. Pratama Mario, and Haeba Ramli, Abdul and Mariam Siti, Customer Engagement, Customer Satisfaction, Customer Commitment And Customer Loyalty, *Jurnal Ilmiah Manajemen Kesatuan*. (2024)
35. Novariani F, Emotional Intelligence, Organizational Commitment and Job Performance in the Private Hospital. *Proceedings of the International Conference on Management, Accounting, and Economy (ICMAE 2020)*, page 151(2020), 280–284.
36. Saylon O, Esmer Y, Role of Customer Involvement in New Product Development Process of Industrial Enterprises: A Conceptional Research, *Verimlilik Dergisi*, Yıl. (2020).
37. Schaarschmidt M, and Kilian T, Impediments to customer integration into the innovation process: a case study in the telecommunications industry, *European Management Journal*. 32(2) (2024) 350-361.
38. Schubert P, and Ginsburg M, Virtual communities of transaction: the role of personalization in electronic commerce, *Electronic Markets*, 10(1) (2000) 45-55.
39. Sgroen Stefan, Customer involvement in new product development: A relationship marketing perspective. *European Journal of Innovation Management*, paper 8 (2005) 424-436.
40. Sharma V.M, and Klein A, Consumer perceived value, involvement, trust, susceptibility to interpersonal influence, and intention to participate in online group buying, *Journal of Retailing and Consumer Services*. 52(2) (2020) 1-11.
41. Straiton N, McKenzie A, Bowden J. et al., Facing the Ethical Challenges: Consumer Involvement in COVID-19 Pandemic Research, *Bioethical Inquiry*. 17 (2020) 743–748.
42. Surya A. P, Customer loyalty from perspective of marketing mix strategy and customer satisfaction A Study from Grab - Online Transportation in Era of Industrial Revolution 4.0, *Mix Jurnal Ilmiah Manajemen*. 9(3) (2019) 394.
43. Thomke S, Von Hippel E, Customers as innovators: A new way to create value. *Harvard Business Review*, (2002) 80-74.
44. Tollin K, Customization as a business strategy – a barrier to customer integration in product development, *Total Quality Management*, 13(4) (2002) 427-39.
45. Utama R, Basri Y. Z, and Ramli A. H, The Influence of Service Quality And Product Quality on Customer Loyalty with Customer Satisfaction as Mediating on The Purchase Of Indonesian Navy Ships, *International Journal of Creative Research and Studies*. 4(6) (2022) 56–67.
46. Verma M, and Naveen B.R, COVID-19 Impact on Buying Behaviour. *The Journal for Decision Makers*, 46(1) (2021) 27-40.
47. Yunus R. R. S, Septyanto D, & Ramli A. H, Analysis of Factors Affecting Customer Satisfaction and Customer Loyalty in the Shopee Marketplace. *Majalah Ilmiah Bijak*, 20(2) (2023) 293–310.

#### **ELECTRONIC MATERIALS REFERENCES**

- <https://www.jstor.org/>
- <https://scholar.google.com/>
- <https://www.google.com/>
- <https://www.ncbi.nlm.nih.gov/pubmed/>
- <https://www.nlm.nih.gov/>
- <https://www.sciencedirect.com/>
- <https://www.webofscience.com/>
- <https://www.scopus.com/>