



<https://www.abrj.org/>

Impact Factor 2.30

An Empirical Examination of Service Attributes and Dynamic Packaging in Driving Consumer Loyalty: The Mediating Effect of Perceived Value in Egyptian Airlines

Author Details:

Yasmine Ahmed Eltahan

ESLSCA University, Giza, Egypt

E-mail: Yamine.eltahan20bg@eslsc.edu.eg

Abstract

This study explains the antecedents of service attributes (Level of Service- Price of Service- Cost of Service) on consumer loyalty in the aviation industry, focusing on perceived value as a mediator and dynamic packaging as independent variable strengthen the whole relationship, as well as the impact of introducing new services on customer loyalty through new entity called (XYZ). The research used SERVQUAL dimension to measure service attributes. The study applies a quantitative, survey-based approach targeting airline passengers in the Egyptian aviation industry. The study contributes theoretically through integrating service quality with online dynamic packaging as positively impact perceived value and indirectly consumer loyalty in the aviation market also discussed the limitations and suggestion for future research

Keywords: Empirical Examination, Service Attributes, Dynamic Packaging, Consumer Loyalty, Egyptian Airlines

1. Introduction

His study provides an introduction to the impact of service attributes on consumer loyalty while Perceived value mediates this relationship and adding new variable (Dynamic Packaging) strengthens the whole relationship, the topic entitled in the study. It begins with the study background explaining the aviation industry focusing on this business in Egypt where the research conducted, then presenting the research gap. This is followed by the problem statement of the research then the research objectives. Afterwards, research importance and followed by limitations of the study, finally, it ends with an outline to the thesis chapters.

2. Literature Review

2.1 Theoretical Foundation

ECT theory explains that consumer satisfaction and loyalty are supported positively by the level of service provided and how these meets customer need or even exceeds customer expectations and whenever happened consumer experience and satisfaction in turn will lead to loyalty (Oliver, 1980). Consumers in the aviation industry evaluate the quality of service provided through (reliability, staff skills, flight punctuality, etc.) comparison with their expectations if the results are positive the consumer will likely perceive premium value which will make him loyal to a specific brand (Parasuraman, Zeithaml, & Berry, 1991; Bigne, Anna, & Andreu, 2008).

Service Quality – Loyalty Theory

In the marketing literature there is a strong relation between service quality and consumer loyalty (Zeithaml, Berry, & Parasuraman, 1996), this relationship measured through the SERVQUAL model and shown that premium service quality shapes consumer evaluation positively which leads definitely to consumer loyalty (Parasuraman, Zeithaml, & Berry, 1988).

Perceived value Theory

Perceived value defined as consumer evaluation during using the service/product and depending what is received and what is given that shaping the consumer perception and intentions toward the brand name (Parasuraman, Zeithaml, & Berry, 1988). This concept expanded and introduced values such as (functional, emotional, social, monetary) which makes customer purchasing decision based on not only the price of service (Sweeney & Soutar, 2001). In airlines Services industry perceived value mediates the link between service attributes and consumer loyalty (Cronin, Badry, & Hult, 2000; Chen & Liu, 2022).

Technology Acceptance and Personalization Theory

The new innovation reforms the aviation industry, also reshape consumer perceptions towards using online services available on airline portals such as dynamic packaging and providing new concept called customization through tailoring travel packages as per consumers need and willingness to pay which led to satisfaction and in turn to loyalty (Davis, 1989; Buhalis & Licata, 2020).

2.2 Synthesis of Empirical Findings and Identified Gaps

Service attributes significantly impact perceived value and loyalty, Perceived value usually acts as a mediator between service quality and loyalty, as well as dynamic packaging and digital customization have-not enough yet examined in the aviation industry, especially in emerging market like Egypt very potential for this research to fill the gap and contribute new measures.

Theoretical Significance

This research model examines the relative impacts of service attributes (cost of service- level of service-price of service) on Consumer loyalty and perceived value mediates the relation between them with measuring the influence of the dynamic packaging on exceeding the consumer perceived values which lead to consumer loyalty in definite, but the model proposed by Parasuraman and Grewal (2000) measures only the overall quality. Furthermore, the model proposed in the research not common to use in Middle East especially in Egypt as previously explained we only have two business model (FSC-LCC) but there is a new digital model is penetrating the market in Europe, United states of America and Asia. In this research as conducted and tested in Egypt the model proposed to be applied in Egypt, Middle East and Africa. Finally, the study integrates traditional service quality frameworks- SERVQUAL- with modern innovation such online dynamic packaging supporting consumer satisfaction.

Empirical Significance

This research model developed a service quality level which designed to be an effective procedure to asses any carrier in the Egyptian context to develop a new business strategy to enhance online services (consumer services-online systems-dynamic packaging).

H1: There is a positive relationship between service attributes (cost of service, level of service, price of service) and perceived value. The link between service attributes and perceived value is derived from SERVQUAL theory and perceived value theory. Customers measure service quality according to multiple dimensions, consequently from their overall evaluation of service outcomes (Parasuraman, Zeithaml, & Berry, 1988). Moreover, perceived value conceptualizes customers assessment of privileges related to cost (Zeithaml V. A., 1988).

H2: Dynamic packaging positively impacted perceived values. Dynamic Packaging hypothesized has an impact on perceived value which supporting by digital innovation and value Co-Creation Theory. Dynamic Packaging warrants passengers to personalize travel components, improving perceived control, being more flexible and suitability (No & Kim, 2015). There are studies conducted in tourism and aviation industry prove that personalization significantly improves perceived value through matching consumers need and willingness to pay (Buhalis & Law,2008; Li& Wang,2018; Buhalis & Licata,2020).

H3: Perceived value mediates the relationship between service attributes and consumer loyalty. Mediation theory explains that service quality impact loyalty indirectly through consumers value evaluation (Gallarza, Saura, & Holbrook, 2011). Furthermore, empirical research conducted in aviation industry explains the mediation role of perceived value between service attributes a consumer loyalty (Cronin, Badry, & Hault, 2000; Han & Hyun, 2018). There is a direct impact of service attributes on consumer loyalty which supported by behavioral loyalty theory (Oliver, 1999), and explains when service provider granted a continuous customer satisfaction this will foster repurchase intentions and attitudinal loyalty towards same brand name (Zeithaml, Berry, & Parasuraman, 1996; Park, Lee, & Nicolau, 2020).

H4: Perceived value mediates the relationship between dynamic packaging and consumer loyalty. The relation between perceived value and consumer loyalty in based on Value -Loyalty frameworks which explains when consumers perceived high value, then long-term commitment toward brand name will be enhanced positively (Sweeney & Soutar, 2001). While dynamic packaging empowers the whole relationship through exceeding customer expectations and enhancing satisfaction to the extent increasing customer retention level which lead to loyalty (Milman & D.A.Tasci, 2022).

3.Research Methodology

3.1 Research Design

This research used approach (Quantitative design). This approach is commonly used in the social studies as it gives the research a comprehensive view and helps the researcher to understand clearly the research problem rather than used one approach (Creswell J. , 2003). This design is well -developed to survey- based studies that need to understand the interaction between multiple constructs in a defined population (Sekaran & Bougie, 2020).

3.2Quantitative Phase

The study employs a quantitative, deductive approach. A deductive approach begins with theory and then uses data to examine hypothesis derived from established concepts (Creswell & Creswell, 2020). The conceptual frameworks and hypotheses were developed from existing theories on service quality, perceived value and loyalty. While quantitative research generalizes findings and the statistical testing of variables relationship and this situation makes the testing for mediation effects very proper and will require numerical data and analytical models (Hair, Hault, Ringle, & Sarstedt, 2021).

3.3 Measures

The questionnaire was analyzed in two main aspects: center tendency, and dispersion. The mean value was used in constructing each variable; this resulted in changes from the Likert scale to the interval scale where the difference between every two points remains the same (Sekaran, 2003). This interval scale enables the research to use both mean and standard deviation in the analysis of the variables, as well as parametric statistics analysis (Sekaran, 2003).This section presents a complete analysis of the questions (Appendix B) to define the trend of the collected sample for each question. For all variables (Service attributes, Dynamic packaging and Consumer Loyalty), the 5-point Likert scale used in this study ranges from one to five, with one representing strongly disagree, two representing disagree, three representing neutral, four representing agree, and five representing strongly agree. Total sample size of 200 responses was collected. Results

4.1 Descriptive Statistics and Correlations for Independent Variables

The descriptive statistics for the independent variable **Service Attributes**, including measures of central tendency and dispersion. The mean scores ranged between 3.72 and 4.21 with SD = 0.92, indicating that respondents strongly acknowledge the importance of service quality in shaping customer satisfaction. Most statements reported median values of 4.00 and mode values of 4, reflecting a consistent tendency toward agreement among respondents. These findings emphasize the importance of service attributes as a fundamental determinant in shaping customers' attitudes and evaluations within the airline industry. The descriptive statistics for the independent variable **Dynamic Packaging**, including measures of central tendency and dispersion. The mean values ranged between 3.73 and 4.01 with SD = 0.81, suggesting that respondents clearly recognize the influence of dynamic packaging on their purchasing behavior. The median and mode values for all items were equal to 4.00, demonstrating consistency in respondents' perceptions and a dominant tendency toward agreement.

Overall, the results indicate that respondents demonstrated a generally positive perception toward the service attributes and application of dynamic packaging within Airline (XYZ).

4.2 Descriptive Statistics and Correlations for dependent Variables

The descriptive statistics for the dependent variable Consumer Loyalty, including measures of central tendency and dispersion. The mean scores ranged from 3.33 to 4.26, With SD = 0.77, highlighting the central role of sustained satisfaction in strengthening consumer loyalty. The standard deviation values ranged from 0.77 to 0.98, indicating acceptable levels of dispersion and a reasonable degree of homogeneity in respondents' perceptions. Furthermore, the full response ranges from 1 to 5 across all items confirms the effective utilization of the five-point Likert scale. Overall, the descriptive findings confirm that consumer loyalty represents a meaningful and well-established construct within the study context.

4.3 Summary of Hypotheses Testing Results

Hypothesis	Relationship	Result	Evidence
H1	Service Attributes → Perceived Value	Supported	Significant positive effect ($p < 0.001$)
H2	Dynamic Packaging → Perceived Value	Supported	Significant positive effect ($p < 0.001$)
H3	Service Attributes → Perceived Value → Consumer Loyalty	Supported	Partial mediation
H4	Dynamic Packaging → Perceived Value → Consumer Loyalty	Supported	Partial mediation

Note: All hypotheses were tested using regression analysis following (Baron & Kenny , 1986) mediation procedure.

4.4 Descriptive Statistics for Mediating Variable

The descriptive statistics for the mediating variable Perceived Value, including measures of central tendency and dispersion. The mean values ranged from 3.85 to 4.21, demonstrating moderate to high levels of agreement among respondents. Most items reported median values of 4.00 and mode values of 4, indicating consistency in respondents' evaluations and a general tendency toward agreement. The standard deviation values ranged between 0.78 and 0.99, suggesting acceptable levels of dispersion and a reasonable degree of homogeneity among responses. Overall, the descriptive results demonstrate that perceived value is strongly associated with

service reliability, information transparency, website performance, and security-related factors, supporting its role as a key mediating variable within the proposed research framework.

4.5 Regression Analysis

Regression Model	F	Sig.	R ²	β	Std. Error	t	P Value
Constant	405.8**	< 0.001	0.67	0.16	0.19	.83	.41
Service Attributes				0.97	0.05	20.14	< 0.001

- Model (F = 405.8, p < 0.001, R² = 0.67).

Regression Model	F	Sig.	R ²	β	Std. Error	t	Table (4-13) Simple regression
Constant	246.2**	< 0.001	0.56	0.93	0.20	4.69	< 0.01
Dynamic packaging				0.80	0.05	15.69	< 0.001

- Model (F = 246.2, p < 0.001, R² = 0.56)

Mediation Analysis Results

(Service Attributes → Perceived Value → Consumer Loyalty)

Step	Path	Regression Relationship	β	t-value	Sig.	Decision
1	Total effect (c)	Service Attributes → Consumer Loyalty	0.428	5.749	0.000	Significant
2	Path (a)	Service Attributes → Perceived Value	0.968	20.144	0.000	Significant
3	Path (b)'	Perceived Value → Consumer Loyalty (controlling for SA)	0.350	5.549	0.000	Significant
	Direct effect (c)'	Service Attributes → Consumer Loyalty (with mediator)	0.278*	—	0.000	Reduced
4	Indirect Effect	(a x b) → (Consumer Loyalty)	0.339			
	Proportion mediated	0.339/0.428= 0.792	→ about 79.2% of the total effect is mediated by Perceived Value			
	—	Mediation Type	—	—	—	Partial Mediation

- **Note: The coefficient of service attributes decreased after including the mediator, indicating partial mediation.**

Mediation Analysis Results

(Dynamic Packaging → Perceived Value → Consumer Loyalty)

Step	Path	Regression Relationship	β	t-value	Sig.	Decision
1	Total effect (c)	Dynamic packaging → Consumer Loyalty	0.401	5.214	0.000	Significant
2	Path (a)	Dynamic packaging → Perceived Value	0.800	15.690	0.000	Significant
3	Path (b)'	Perceived Value → Consumer Loyalty (controlling for SA)	0.312	4.987	0.000	Significant
	Direct effect (c)'	Dynamic packaging → Consumer Loyalty (with mediator)	0.251*	—	0.000	Reduced
4	Indirect Effect	(a x b) → (Consumer Loyalty)	0.250			
	Proportion mediated	$0.250/0.401 = 0.623$	→ about 62.3% of the total effect is mediated by Perceived Value			
	—	Mediation Type	—	—	—	Partial Mediation

- **Note: The coefficient of dynamic packaging decreased after including the mediator, indicating partial mediation.**

5. Discussion

This study presented the results of the statistical analysis conducted to examine the proposed research model and test the study hypotheses. Descriptive statistical analysis was first employed to summarize respondents' perceptions of service attributes, dynamic packaging, perceived value, and consumer loyalty. The results indicated generally positive evaluations across all study variables.

Subsequently, regression analysis was used to test the direct relationships between the independent variables and the mediating variable. The findings confirmed that both service attributes and dynamic packaging have significant positive effects on perceived value, supporting the proposed assumptions of the research model.

The mediating role of perceived value was then examined following Baron and Kenny's (1986) mediation procedure. The results demonstrated that perceived value partially mediates the relationship between service attributes and consumer loyalty, as well as the relationship between dynamic packaging and consumer loyalty. In both cases, the inclusion of perceived value reduced the direct effects of the independent variables on consumer loyalty while remaining statistically significant, indicating partial mediation.

Overall, the statistical findings provide empirical support for all proposed hypotheses and confirm the validity of the conceptual framework. The results of this chapter form the basis for the discussion and interpretation presented in the following chapter.

5.1 Theoretical Contribution

Conjunction of SERVQUAL and Digital Value Theory: The combination of service quality dimensions with dynamic packaging, this integration gives SERVQUAL model an extension to include digital innovation and digital services attributes, linking traditional and technology-driven service delivery theories.

The Mediating Role of Perceived value: This study showed the mediating role of perceived value as a key construct boosting the bridging between service quality and loyalty. This is considered an extension for (Parasuraman, Zeithaml, & Berry, 1988) model in the aviation context.

Dynamic Packaging: It combines digital innovation particularly dynamic packaging with traditional service quality models, filling gap in the aviation research.

This Context in Egypt as Emerging Market: There are a few studies tested these relationships in the Egyptian aviation context. Also, this study gives geographic and cultural diversity for the consumer loyalty in emerging market such as Egypt to the global aviation context.

5.2 Practical Implications

Concentrate on Consistency and Reliability: Service provider must focus on service reliability and consistency through operation such as on time performance, clear communication and self-baggage handling to reinforce perceived value and consumer loyalty.

Improve Staff Professionalism: Human empathy and interact stay a main determinant for perceived value quality. This will be enhanced through training employees (cabin crew- ground service crew) specially in problem solution and empathy will boost assurance and trust.

The Influence of Dynamic Packaging: Airlines must enhance dynamic packaging as a facility tool through online portals by offering several facilities to passengers to ease the booking process whether booking flights, hotel accommodations, car rentals, etc. the availability of this online tool enhances perceived value and consumer loyalty.

Personalization and Consumer Preferences: Through analyzing consumer preferences data and using the customer relationship management airlines, airlines can personalize offers and bundles matching consumer preferences which will increase consumer satisfaction and loyalty.

Hybrid Service Model: In the Egyptian aviation context, airlines combine high service quality and digital efficiency also, personal care with the new self – service technology to create niche competitive product/service.

5.3 Limitations

This study achieved its objectives but there are various limitations recognized as follow:

Sample: the convenience sampling method restricts generalization across the population, as respondents are not full represents all Egyptian passengers. Future studies may employ stratified sampling for greater representativeness.

Contextual constrains: this study focused on the Egyptian passengers as it conducted in Egypt on carriers operating from Cairo, then other cultures not monitored. The future studies conducted across countries may strengthen generalizability.

Cross sectional Design: Data collected at single point in time, preventing causal inference. longitudinal research could better measure how consumer perceptions, loyalty may offer deeper insights.

Self-Reported Data: Responses were based on subjective perceptions, that influenced by social attractiveness. the dependence on self-reported survey data may be considered bias. For the future studies will be more likely if it depends on behavioral data like travel frequency and flight manifest.

Exclusion of variables: There are potential variables such as trust, brand image or switching cost not included and may impact loyalty in the aviation sector.

5.4 Future Research

According to the above limitations, there are several gaps for future research may propose as following: -

Comparing Airline Studies: There is a gap or future studies shall compare EgyptAir as the national carrier of Egypt with regional carriers and low-cost carriers to assess the different impacts of service attributes.

Longitudinal Analysis: Measuring the growing of perceived value and loyalty over different travel experience shall enhance consumer retention conception.

Using of More Digital Factors: In the future study shall use more digital innovation factors such as digital trust, website ease of use or using of AI in service personalization as moderator or mediator.

Validation of Cross- Cultural: Using the research model in other country such as African countries or middle east countries shall generalize the model in emerging markets.

Using of Mixed Methods Approach: For instance, the combination between quantitative and qualitative approach shall prove more insights for the perception of passenger and value expectations.

6. Conclusion

This research provides a combination among SERVQUAL model, perceived value theory and dynamic packaging provide an inclusive framework for grasping consumer loyalty in emerging markets. The finding of this study contributes to academic literature and providing real insights for practitioners struggling to promote customer retention and enhance his experience.

This research explained that even in the age of digital innovation service attributes are a backbone of loyalty structure. SERVQUAL dimensions (Reliability-Assurance-Responsiveness-Tangibility-Empathy) consistently drive passengers' assessment of service quality and value as a whole. On the same time this research explained the mediating role of perceived value between the service attributes and consumer loyalty through transferring experience to emotional attachment and commitment to specific brand, when consumers received high level of service in terms of comfort, customization and personalization with fair prices then consumers are more likely loyal to an airline brand name. furthermore, dynamic packaging strengthens perceived value -loyalty relationship. On the same time, it plays a critical modern role as it is considered a modern loyal enhancer highlighting the significance of digital transformation in the aviation industry where consumers keep searching for convenience, flexibility and control their travel planning.

Declarations

Authors declare that they have no conflicts of interest.

References

- Baron, R., & Kenny, D. (1986, January). *The Moderator-Mediator Variable Distinction in Social Psychological Research : Conceptual , Strategic' and Statistical Considerations. Journal of Personality and Social Psychology, 51(6), 1173-1182.*
- Bigne, J., Anna, S., & Andreu, L. (2008). *the impact of experiential consumption cognitions and emotions on behavioral intentions. Journal of Service Marketing, 22(4), 303-315.*
- Buhalis, D., & Licata, M. C. (2020). *The future of E Tourism intermediaries. Tourism Management Perspectives, 33, 100-108.*
- Buhalis, D., & Law, R. (2008, August). *Progress in Information Technology and Tourism Management : 20 Years on and 10 Years After the Internet The State of E- Tourism Research. Tourism Management, 29(4), 609-623.*
- Chen, L., & Liu, X. (2022). *Airline service quality , passenger satisfaction and loyalty : the mediating role of perceived value. Journal of Air Transport Management, 105, 102-120.*
- Creswell, J. (2003). *research Design Qualitative, Quantitative , and Mixed Methods Approaches (second ed.). SAGE Publications.*
- Creswell, J. W., & Creswell, J. D. (2020). *Research design : Qualitative ,quantitative , and mixed methods approaches (5th ed). Sage Publications.*
- Cronin, J. J., Badry, M. K., & Hult, G. T. (2000). *Assessing the effect of quality , value , and customer satisfaction on consumer behavioral intentions. Journal of Retailing, 76(2), 193-218.*
- Davis, F. D. (1989). *Perceived usefulness, perceived ease of use , and user acceptance of information technology. MIS Quarterly, 13(3), 319-340.*
- Hair, J. F., Hault, G. T., Ringle, C., & Sarstedt, M. (2021). *A primer on partial least squares structural equation modeling (PLS-SEM). Sage Publications.*
- Han, H., & Hyun, S. S. (2018). *Customer retention in the airline industry: The effects of service quality and price fairness. Journal of Air Transport Management, 77, 35-44.*
- Li, X., & Wang, Y. (2018). *Customized dynamic packaging and perceived value : Moderating effects of consumer involvement. Journal of Travel Research, 57(5), 579-592.*
- Milman, A., & D.A.Tasci, A. (2022). *The influence of dynamic pricing on consumer trust, value, and loyalty relationships in theme parks. Journal of vacation marketing.*
- No, E., & Kim, J. (2015). *The effect of dynamic packaging on customer value perception. Information Technology & Tourism, 15(4), 375-392.*
- Oliver, R. L. (1980). *Acognitive model of the antecedents and consequences of satisfaction decisions. Journal of Marketing Research, 17(4), 460-469.*
- Oliver, R. L. (1999). *whence consumer Loyalty? Journal of Marketing, 63(special issue), 33-44.*
- Parasuraman, A., Zeithaml, V., & Berry, L. (1991). *Understanding Customer Expectations of Servic. Sloan Management Review, 32:39-42.*
- Parasuraman, A., Zeithaml, V., & Berry, L. (1985). *Acoceptual Model of Service Quality and its Implication for Future Research (SERVQUAL). Journal of Marketing, 49, 41-50.*

- Parasuraman, A., Zeithaml, V., & Berry, L. (1988). SERVQUAL : A multiple-item scale for measuring Consumer Perceptions of Service Quality. Journal of Retailing, 12-40.*
- Park, S., Lee, J.-S., & Nicolau, J. (2020). Understanding the Dynamics of the quality of airline service attributes : satisfiers and dissatisfiers. Tourism Management, 81.*
- Sekaran, U. (2003). Research Methods for Business : A Skill-Building Approach. (4 ed.). New York: John Wiley & Sons , Inc.*
- Sekaran, U., & Bougie, R. (2020). Research methods for business : A skill -building approach (8th ed) . Wiley.*
- Sweeney , J. C., & Soutar, G. N. (2001). Consumer perceived value: The development of a multiple item scale . Journal of Retailing, 77(2), 203-220.*
- Zeithaml, V. A. (1988). Consumer perceptions of price ,quality, and value : the development of a multiple item scale. Journal of Retailing, 52(3), 2-22.*
- Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). The behavioral consequences of service quality. Journal of Marketing, 60(2), 31-46.*