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The Impact of Technological Innovation on Co-Production and Co-Creation in Red Sea Hotels

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Abstract

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Innovation in technology, including artificial intelligence (AI), robotics, and digital tools, improves service effectiveness, lowers expenses, and makes customized client experiences possible. Co-production promotes shared accountability and increased customer satisfaction by emphasizing active client participation in service design and delivery. In a similar vein, co-creation entails the cooperative creation of value, whereby hotels and patrons work together to create distinctive and customized experiences that increase patronage and confidence. The combination of these components demonstrates how technology advances enable collaborative and participatory practices, which help hotels, better understand the needs of their patrons, improve service quality, and experience competitive and long-term growth. This study investigates the impact of technological innovation on co-production and co-creation in Red Sea hotels, focusing on how modern technologies enhance guest experiences and operational efficiency. The research aims to evaluate the relationship between technological innovation and collaborative practices with customers in terms of co-production and co-creation. Data were collected from a sample of 256 managers in Red Sea hotels using a structured questionnaire measuring technological innovation, co-production, and co-creation. The findings reveal a strong positive relationship between technological innovation and co-production ($R=0.662$) and co-creation ($R=0.659$), indicating statistically significant effects. The study concludes that technological innovation fosters interactive processes between hotels and customers, enhancing customer satisfaction and competitive advantage. It recommends that hotels adopt innovative technologies and actively engage customers in service design to achieve long-term sustainability.

Introduction

According to Ding et al. (2023), the three industrial revolutions have demonstrated that technological innovation has both creation and substitution effects on employment over the long term. The overall impact of technological innovation on employment is contingent upon the dynamic fluctuations of both creation and substitution effects. The hotel sector is continuously evolving and changing with the aid of clever technology as a new wave of

technological innovation arrives. Hotel services are becoming more intelligent with the introduction of voice control, robot services, face brushing, and other items (Tian, 2024). Through networking and digitization, artificial intelligence (AI) guest rooms enable the hotel's digital information service technology, saving a significant amount of labor (Negro, 2022; Tian, 2024).

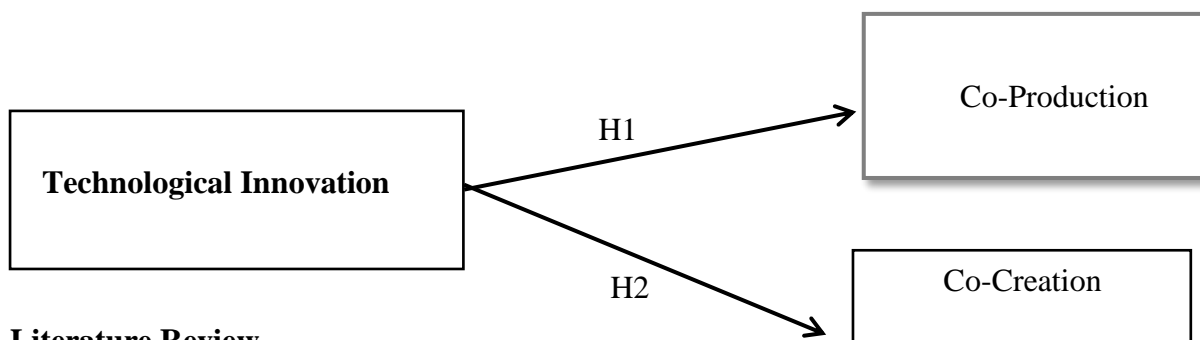
Co-creation and social innovation are "magic concepts" that have gained popularity as a new reform approach in recent years (Torfing et al., 2023). One of the most important ideas in comprehending knowledge-policy interactions is co-production. The term "co-production" was coined concurrently by three academic communities: sustainability science, science and technology studies (STS), and public administration. It has been used to describe this process in a variety of disciplinary and policy areas (Miller & Wyborn, 2020). However, because of the need for more research on how the service provider may create an interactive atmosphere, promote client interaction, and enhance value co-creation, co-creation theory and practice are still in their infancy (Chandra & Rahman, 2024).

Aim and Objective

This research aims to evaluate how technological innovation affects co-production and co-creation in Red Sea hotels, investigating how the hospitality industry benefits from novel technologies that improve customer interaction, service delivery, and cooperative value generation.

Research Hypothesis

1. There is a statistically significant effect of Technological Innovation on Co-Production in Red Sea Hotels.
2. There is a statistically significant effect of Technological Innovation on Co-Creation in Red Sea Hotels



Literature Review

Technology innovation

Technological innovation is an aspect of the complex system of technology aimed at meeting needs, achieving objectives, and resolving adopters' issues. It occurs when new ideas and/or methods of doing things are turned into practical tools and applications that allow organizations and/or adopters to take advantage of significant opportunities, deal with issues, or combat environmental threats. The primary features of technical innovation's evolution to facilitate wealth creation and the advancement of human societies are its source and spread (Coccia, & Mosleh, 2022).

Technology innovation in hotels

Technology gives hotels a significant competitive edge; new developments in this area improve service quality, boost employee productivity, and reduce operating expenses. Research has shown that technology is changing how hotels interact with their clientele; front desk service technologies are just as important, if not more so, but have not gotten much attention up to this point (Iranmanesh et al., 2022).

In particular, front desk technologies save operational time and costs by allowing staff to access and integrate vast amounts of consumer data for effective service delivery to clients. Effective front desk technologies provide hotel guests with more efficient, personalized service in a shorter amount of time (Shin et al., 2019).

Crucially, these technologies must be used by employees. On the other hand, staff adoption behavior in voluntary settings has been a major focus of the hotel technology research that is currently available. Furthermore, although technology adoption procedures have been the focus of previous study, comprehending these processes alone is not enough to fully comprehend the managerial and operational impacts of these technologies (Cimbaljević et al., 2023).

The hotel sector is continuously evolving and changing with the aid of clever technology as a new wave of technological innovation arrives. The hotel service becomes more intelligent as face brushing, voice control, robot services, and other items enter the building. Through networking and digitization, artificial intelligence (AI) guest rooms enable the hotel's digital information service technology, saving a significant amount of labor (Negro, 2022; Tian, 2024).

The concept of Co-production

According to Casidy et al. (2022), co-production entails consumer involvement in creating the intended offering as indicated by interaction, equity, and knowledge exchange. One of the fundamental ideas of evidence-informed policy and practice is "co-production," which is important both theoretically and practically. It is frequently cited as the best way to mobilize evidence in policy and practice contexts, and it has emerged (almost) independently within multiple disciplines. It has been used in a variety of policy and practice fields, such as sustainability, health, and the environment (Bandola-Gill et al., 2023).

A value-driven consider based on the idea that service users are best suited to assist in designing a service is one in which citizens, decision makers, service users, family carers, and service providers collaborate to develop a decision or service that benefits everyone (Broadhurst, 2024). The traditional perspective known as "goods-dominant logic" informs co-production, which stresses a firm-centric view of client involvement during service development. It is described as a business-to-business exchange of goods and services based on concurrent production and consumption (Khine et al., 2021).

Co-Production Characteristics

According to (Chathoth, et al., 2013; Font et al., 2021) the following are characteristics of co-production:

- (1) The company as the hub for value generation.
- (2) Ignores how important it is for the company and its customers to reciprocate.
- (3) Ignores the possibility that, in the production of services, the firm and the customer may become mutually dependent.

Co-creation concept

It is described as the cooperative creation of value for both consumers and businesses via an interactive process; the focus is on the producer and consumer working together to create value (Fan & Luo, 2020). Mutuality and reciprocity are crucial; businesses and consumers have equal and interdependent roles in the development of services and value; conversing with and learning from customers is crucial to this process (Huang et al., 2020).

Levels of co-creation process

Participation of customers in co-creative services Three levels of involvement are possible for innovation: low, where the customer's presence is all that is needed; moderate, where the customer's input is required to deliver the service; and high, where the customer participates as a co-producer of the service (Sarmah et al., 2017; Coccia, 2021).

Co-creation in hotels

By adopting a co-creation approach, hotels can improve their ability to stand out in a competitive market. For instance, it can lead to barriers to imitation, increased customer satisfaction and loyalty, unique positive experiences, and increased profitability overall (Cabiddu, et al., 2013). Hotels are embracing co-creation by tailoring their offerings based on the comments and personal histories of their visitors. The results indicate that in order to get a competitive edge, hotels should enhance the perceived value for patrons (Islam et al., 2024).

For a number of reasons, value co-creation in the hospitality sector is essential since it provides insightful information about the dynamics of customer engagement, service delivery, and the expansion of the travel and hospitality sector as a whole. Designing services that meet the requirements and preferences of customers is made possible by an understanding of how travelers and service providers can work together to produce value. Customer satisfaction increases the likelihood of repeat business and loyalty, which benefits the long-term viability of the travel and hospitality industries (Carvalho & Alves, 2023).

Technological innovation and co-Creation

Multiple logics drive technological advancement, which is not motivated by the desire to replace human work. Knowledge and abilities have changed as a result of the advancement of AI technology. In the long term, technological innovation creates more jobs than it destroys since it can both generate new jobs and replace existing ones, even while it may eliminate some traditional jobs in the short term (Ciarli et al., 2021). Currently, digital technology has produced a lot of new digital jobs, improved the labor market, and given rise to new businesses and formats including crowdsourcing, e-commerce, live streaming, and the casual economy (Liu, 2024).

Through the development of new machinery, industries, goods, and other creative methods, technological innovation raises overall employment (Chege & Wang, 2020). It is clear that innovation in the workplace is advantageous. According to Pianta and Antonucci (2002), technological innovation boosts business efficiency and lowers prices, and product upgrades cause comparable industrial workers to transfer to the balance of new production. In order to offset the initial loss of jobs brought on by technological innovation, some of the cost savings from innovation are also converted into increased income and consumption (Wang & Wang, 2020).

Methodology

Sample size

This research aims to assess the Impact of Technological Innovation on Co-Production and Co-Creation in Red Sea hotel chains. It is conducted on a convenience sample of (256) manager in red sea hotels. The population of this study was selected randomly.

Appropriate sample size of the study population was calculated using the Cochren, J. formula (Cochran, & Banner, 1977.) as follows:

$$n = \frac{z^2 \times \hat{P}(1 - \hat{p})}{\epsilon^2}$$

$$= 249n = \frac{1.96^2 \times 0.5(1-0.5)}{0.05^2}$$

where:

n: Sample Size

Z: Standard Degree (1.96 at significant level of 0.05).

\hat{p} : Sample proportion, and neutral = 0.50

ϵ : maximum allowed error (0.05 at significant level of 0.05).

Applying these values to the Cochren, J. formula reveals that the appropriate sample size for this study is (249) participants. The researcher distributed (260) questionnaires, after analysis (256) were valid with respondent rate of (98.46%).

Research Tools

The questionnaire was adopted to collect the data. Questionnaire was divided into two sections. Section one focused on personal data while section two was about questionnaire statements, which are the Innovation Technology, Co-production and Co-creation.

The questionnaire used a five-point Likert scale, where respondents were asked to indicate their level of agreement or disagreement for the second through fifth sections as follows: Strongly Agree (5), Agree (4), Neutral (3), Disagree (2), and Strongly Disagree (1). Data analysis was performed using the Statistical Package for the Social Sciences (SPSS), version 23.

Reliability

Table (1): Reliability Analysis of Study Variables.

The Axes	No. of statements	Alpha Coefficient
Innovation Technology	13	0.971
Co-production	13	0.823
Co-creation	11	0.901
The Overall Cronbach's Alpha	37	0.908

Reliability is defined by Sürücü and Maslakçı (2020) as the stability and consistency of the measurement tool being utilized. Creswell et al., (2014) recognized the Alpha Coefficient as an internal consistency model based on the average inter-item correlation. The Cronbach's α

reliability coefficient normally ranges from 0 to 1, according to Gliem & Gliem (2003). Additionally, they mentioned the following rules: Variables were categorized as exceptional if their score was greater than 0.9, good if their score was greater than 0.8 and acceptable if their score was larger than 0.7. A score of less than 0.5 was considered unsatisfactory, a score of more than 0.6 was considered doubtful, and a score of more than 0.5 was considered poor. Cronbach's alpha coefficient was used to assess the reliability of the current study variables; all axes were more than 0.8. All of the variables had an overall Cronbach's Alpha of greater than 0.9, indicating that they were all very good and trustworthy (see table, 1). The number of variables on each axis is represented by the number of statements.

Validity

Table (2): Validity Analysis of the Study Variables.

The Axes	No. of statements	Loading
Innovation Technology	13	0.892
Co-production	13	0.915
Co-creation	11	0.834
The Overall Loading	37	0.902

All 37 questionnaire statements were found to be responsible for all research dimensions with a percentage of 90.2%, according to the component analysis displayed in Table (2). This indicates that all variables were valid and acceptable (see table 2).

1- Personal Data

Table (3) Demographic Data

	Frequency	percentage	rank
Gender			
Male	234	91.41	1
Female	22	8.59	2
Sum	256	100%	
Age			
Less than 30 years	9	3.52	3
From 30 to 45 years	47	18.36	2
More than 45 years	200	78.13	1
*Sum	256	100%	
Educational background			
University qualification	189	75.3	1
Intermediate qualification	24	7.6	3
Postgraduate studies (diploma - masters - doctorate)	43	17.1	2
*Sum	256	100%	
Years in service			
Less than 5 years	14	5.6	3
From 5 to 10 years	73	27.1	2
More than 10 years	169	67.3	1
*Sum	256	100%	
Department			
Front office	56	22.3	1
Housekeeping	36	14.3	3

Food and Beverages	41	16.3	2
Security	31	11.4	4
Marketing and sales	16	6.3	8
Accounting	20	8.0	7
Human Resource management	31	11.4	5
Engineering and maintenance	25	10.0	6
*Sum	256	100%	

Table (3) presents sample size demographic data, according to participants' gender, result shows that the percentage of males (91.41%) is more than females (8.59%). According to participant's age, ranking number one is "More than 45 years" with percentage (78.13%) and ranking number two is "From 30 to 45 years" with percentage (18.36%) and finally "Less than 30 years" with percentage (3.52%). According to educational level, (Frq. = 24, P= 7.6%) graduated as intermediate qualification, the majority (Frq. =189, P= 75.3 %) of managers have a university qualification and only (Frq. = 43, P= 17.1%) of managers have postgraduate studies (diploma - masters - doctorate). In terms of years of experience, the vast majority of managers have more than 10 years of experience (Frq. =169, P= 67.3) and only (Frq. = 14, P= 5.6%) of managers have less than 5 years of experience. According to department (Frq. = 41, P= 16.3%) of managers from Food and Beverages department, (Frq. = 36, P= 14.3%) of managers from housekeeping, (Frq. = 56, P= 22.3%) of managers from Front office, (Frq. = 16, P= 6.4%) of managers from marketing and sales.

Innovation Technology

Table (4.): Statistics for the innovation technology

Innovation Technology	Mean	SD	Rank
The hotel uses technological products and service processes.	4.03	.96	12
The hotel utilizes the results of advanced technology.	3.99	.72	13
The hotel is known for having successful service innovations.	4.06	1.08	11
The application of technology is included in the hotel service.	4.11	.87	9
The hotel is famous for its technical quality.	4.15	.71	8
using innovation technology in hotels contributes in reducing service prices	4.63	1.02	4
Using innovative technology in hotels ensures that products and services remain up-to-date.	4.54	.98	6
hotels use innovation technology in Varieties of product/service.	4.08	.92	10
Using innovative technology in hotels positively contributes to various processes related to guest experiences.	4.41	.89	7
Using innovation technology in hotels contributes in improving provided service quality.	4.71	1.21	2
Using technology innovation in hotels helps to introduces accurate, updated and trustworthy information.	4.69	1.07	3
Digital check-ins, especially mobile check-in, and check outs have curtailed long waiting times at hotel desks.	4.72	.91	1
Management software assists in organizing bookings, managing room availability efficiently while handling customer data and requests swiftly.	4.58	1.23	5
Overall	4.54	.92	

Table (4) viewed that concerning Innovation Technology, the first variable was "Digital check-ins, especially mobile check-in, and check outs have curtailed long waiting times at hotel desks", where the standard deviation was.91 and the mean was 4.72. Conversely, "The

hotel utilizes the results of advanced technology" had the lowest variance, with a mean value of 3.99 and a standard deviation of .72. The standard deviation of the mean values was .92, while the total mean of the variables was 4.54.

Co-production

Table (5): Statistics for the Co-production

Co-production	Mean	SD	Rank
Co-production in hotels is a key concept in the development of hotel services and it has the potential to make an important contribution to all the big challenges.	4.28	.98	10
Co-production in hotels is the active participation of customers and other stakeholders in the creation and delivery of products.	4.36	1.02	9
Co-production in hotels can occur at different stages of the production process, from ideation and development to implementation and feedback.	4.41	.98	7
To define the purpose and scope of co production in hotels, must consider the goals and objectives, target customers and stakeholders, and expected outcomes and impacts.	4.47	1.16	6
Co-production can make services a better fit for the people that use them, and more accessible.	4.61	1.02	3
Co-production has a positive impact on the hotel and customers.	4.49	1.08	5
Co-production in hotels helps maximize the hotels' productivity of different products.	4.63	.78	2
Co-production in hotels plays a role in achieving shared responsibility for the customer and the hotel.	4.69	.68	1
Customer participation in the production process leads to creating an equal impact between the customer and the hotel in designing and delivering products.	4.58	.1.22	4
Applying co-production practices helps the customer adapt to the hotel.	4.37	1.14	8
Customer participation in the production process helps achieve positive changes in systems and services.	3.99	.91	13
Co-production helps with communication and information exchange.	4.18	.74	12
Co-production in hotels is a process aimed at engaging customers in a positive way.	4.27	1.12	11
Overall	4.46	.96	

According to Table 5, the first variable pertaining to co-production was "Co-production in hotels provides a role in reaching common objectives for the customer and the hotel." The standard deviation was .68 and the mean value was 4.69. However, with a mean value of 3.99 and a standard deviation of .91, the least variable was "Customer participation in the production process helps achieve positive changes in systems and services." The standard deviation of the mean values was .96, while the total mean of the variables was 4.46.

Co-creation

Table (6): Statistics for the Co-creation

Co-creation	Mean	SD	Rank
Customer interaction and feedback are essential success criteria for a new service to be successful.	4.12	1.03	8
In hotels, customer characteristics play a vital role in co-creative service Innovation practices at large.	4.15	.90	7
Co-creation happens when "the hotel and the customer are intimately involved in jointly creating value that is sustainable to the hotel and unique to the individual customer."	4.36	.76	5
Hospitality services can be improved through information provided by co-creating customers.	4.48	.97	4
As hotels in the hospitality industry strive to attract potential customers, many collaborate to engage with their clientele and gain a deeper understanding of their needs.	4.04	.78	10
Value co-creation results from interactions between hotels and their patrons (partners), while value creation is the result of the guest's generation of value-in-use.	4.11	.96	9
In order to develop new services and increase guest value, value co-creation places equal emphasis on working with partners as well as guests.	4.22	.88	6
Co-creation in hotels helps to increase guest's trust.	4.51	.74	3
When guests participate in creating new services that satisfy them, this helps to achieve mutual benefit for them and the hotel.	4.53	1.13	2
Radical changes in business environments have led to the need to apply co-creation in hotels.	3.99	1.16	11
Co-creation helps to improve operations within the hotel.	4.57	1.11	1
Overall	4.27	.94	

According to Table (6), the first variable pertaining to co-creation was "Co-creation helps to improve operations within the hotel," with a mean value of 4.57 and a standard deviation of 1.11. However, "Radical changes in business environments have led to the need to apply co-creation in hotels" was the least variable, with a mean value of 3.99 and a standard deviation of 1.16. The standard deviation of the mean values was .94, while the total mean of the variables was 4.27.

The Impact of Technological Innovation on Co-Production.

Testing the First Study Hypothesis

H₁: There is a statistically significant effect of Technological Innovation on Co-Production in Red Sea Hotels.

Table (7): Impact of Technological Innovation on Co-Production in Red Sea Hotels.

Dependent Variable		Independent Variable
		Technological Innovation
Co-Production	R	0.662
	R ²	0.435
	Sig.	0.000
	Constant	-2.5
	B.	1.640

Technological Innovation and Co-Production had a strong and substantial association (R=0.662), according to Table (7). The determination coefficient, or R Square (R²), was 0.435. Furthermore, the fact that the sig. was (0.000) smaller than (0.05) indicated that the independent variable (technological innovation) had a significant impact on the dependent variable (co-production). Additionally, with a significance level below 0.05, the statistical constant (α) equals -2.5, while (B) equals 1.640. This outcome showed that the study's initial hypothesis was accepted. The equation that was proposed was as follows:

$$\text{Co-Production} = (1.640 * \text{Technological Innovation}) - 2.5$$

The Impact of Technological Innovation on Co-Creation

Testing the Second Study Hypothesis

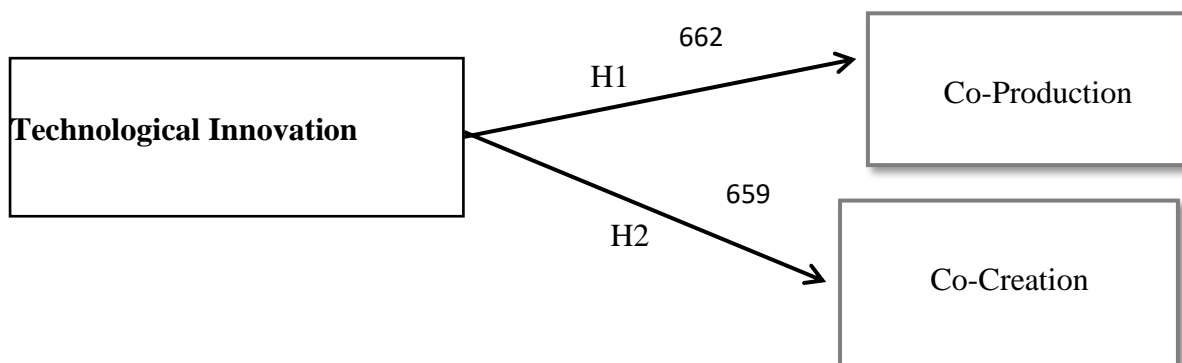
H₂: *There is a statistically significant effect of Technological Innovation on Co-Creation in Red Sea Hotels.*

Table (8): Impact of Technological Innovation on Co-Creation in Red Sea Hotels.

Dependent Variable		Independent Variable	
		Technological Innovation	
Co-Creation	R	0.659	
	R ²	0.431	
	Sig.	0.000	
	Constant	-2.4	
	B.	1.639	

Technological Innovation and Co-Creation had a strong and substantial association (R=0.659), according to Table (8). The determination coefficient, or R Square (R²), was (0.431). Furthermore, the fact that the sig. was (0.000) smaller than (0.05) indicated that the independent variable (technological innovation) had a substantial impact on the dependent variable (co-creation). Additionally, with a significance level below 0.05, the statistical constant (α) equals -2.4, while (B) is 1.639. This outcome suggested that the study's second hypothesis was approved. The equation that was proposed was as follows:

$$\text{Co-Creation} = (1.639 * \text{Technological Innovation}) - 2.4$$



Conclusion

The research conclusions highlight how technological innovation has a major positive influence on co-production and co-creation in Red Sea hotels. Technological innovation significantly improves these dimensions, according to quantitative study, with statistical findings showing significant correlations ($R=0.662$ for co-production and $R=0.659$ for co-creation). These correlations imply that technological solutions, such mobile services, digital check-ins, and sophisticated management software, enhance operational effectiveness and visitor happiness while simultaneously encouraging collaborative and participatory procedures.

Co-production techniques enable visitors to actively engage in the creation of services, fostering advantages for both visitors and hotels. In a similar vein, co-creation promotes cooperative efforts between hotels and patrons to create distinctive and customized experiences, enhancing patron loyalty and trust. The survey also emphasizes how crucial consumer involvement and input are to improving hotel services and gaining a competitive edge.

Hotels' technical know-how is becoming more widely recognized as a competitive advantage that boosts their attractiveness and dramatically raises guests' opinions of value (Giannoukou, 2024). To develop innovative services and increase customer value, value co-creation places a strong emphasis on working together with partners and customers (Saha et al., 2022).

In addition, the study aims to measure the Impact of Technological Innovation on Co-Production and Co-Creation in Red Sea Hotels. Moreover, the findings of this study have useful and practical implications for the hotels in the red sea, the governmental bodies responsible for tourism activity in the red sea.

In addition, based on the data analysis, there is a positive Impact of Technological Innovation on Co-Production in Red Sea hotels; there is a positive Impact of Technological Innovation on co creation in red sea hotels. Moreover, co-production and co creation practices will help hotels to gain information from guests and improve services and products.

Overall, the results highlight the need to use technology to increase customer interaction and enhance service quality, offering practical insights for hotel management in the Red Sea region. Long-term success in a cutthroat industry can be ensured by promoting guest involvement in co-production and co-creation, which can further spur innovation and sustainability in hotel operations.

Recommendations

Recommendations for Red Sea Hotels

1. Emphasizing the importance of adopting technological innovation in hotels to enhance strategies and align with global and technical advancements.
2. Encouraging guests to engage in co-production and co-creation to boost their satisfaction with the services they receive.
3. Leveraging co-production and co-creation to gather valuable information and feedback on hotel services.
4. Utilizing insights from co-production and co-creation to improve the overall level of service within the hotel.

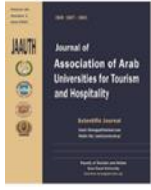
5. Harnessing the positive impact of technological innovation on co-production and co-creation to enhance service development in the hotel.

References

- Akcay, E. (2021). Utilising marketing resources and capabilities for value co-creation in cross-category brand alliances (Doctoral dissertation, Bournemouth University Business School).
- Bandola-Gill, J., Arthur, M., & Leng, R. I. (2023). What is co-production? Conceptualising and understanding co-production of knowledge and policy across different theoretical perspectives. *Evidence & Policy*, 19(2), 275-298.
- Broadhurst, K. (2024). Contextualizing co-production and complex needs: Understanding the engagement of service users with severe and multiple disadvantages. *Public Policy and Administration*, 39(2), 259-277.
- Cabiddu, F., Lui, T. W., & Piccoli, G. (2013). Managing value co-creation in the tourism industry. *Annals of Tourism Research*, 42, 86-107.
- Carvalho, P., & Alves, H. (2023). Customer value co-creation in the hospitality and tourism industry: a systematic literature review. *International Journal of Contemporary Hospitality Management*, 35(1), 250-273.
- Casidy, R., Leckie, C., Nyadzayo, M. W., & Johnson, L. W. (2022). Customer brand engagement and co-production: an examination of key boundary conditions in the sharing economy. *European Journal of Marketing*, 56(10), 2594-2621.
- Chandra, B., & Rahman, Z. (2024). Artificial intelligence and value co-creation: a review, conceptual framework and directions for future research. *Journal of Service Theory and Practice*, 34(1), 7-32.
- Chathoth, P., Altinay, L., Harrington, R. J., Okumus, F., & Chan, E. S. (2013). Co-production versus co-creation: A process-based continuum in the hotel service context. *International Journal of Hospitality Management*, 32, 11-20.
- Chege, S. M., & Wang, D. (2020). Information technology innovation and its impact on job creation by SMEs in developing countries: an analysis of the literature review. *Technology Analysis & Strategic Management*, 32(3), 256-271.
- Ciarli, T., Kenney, M., Massini, S., & Piscitello, L. (2021). Digital technologies, innovation, and skills: Emerging trajectories and challenges. *Research Policy*, 50(7), 104289.
- Cimbaljević, M., Demirović Bajrami, D., Kovačić, S., Pavluković, V., Stankov, U., & Vujičić, M. (2023). Employees' technology adoption in the context of smart tourism development: the role of technological acceptance and technological readiness. *European Journal of Innovation Management*.
- Coccia, M. (2021). Technological innovation. *innovations*, 11, I12.
- Coccia, M., Roshani, S., & Mosleh, M. (2022). Evolution of sensor research for clarifying the dynamics and properties of future directions. *Sensors*, 22(23), 9419.
- Cochran, S., & Banner, D. (1977). Spall studies in uranium. *Journal of Applied Physics*, 48(7), 2729-2737.

- Ding, C., Song, X., Xing, Y., & Wang, Y. (2023). Bilateral effects of the digital economy on manufacturing employment: substitution effect or creation effect? *Sustainability*, 15(19), 14647.
- Fan, X., & Luo, Y. (2020). Value co-creation: A literature review. *Open Journal of Social Sciences*, 8(2), 89-98.
- Font, X., English, R., Gkritzali, A., & Tian, W. S. (2021). Value co-creation in sustainable tourism: A service-dominant logic approach. *Tourism Management*, 82, 104200.
- Giannoukou, I. (2024). Revolutionizing Hospitality: Strategic Integration of Innovation Management Embracing Technological Innovation for Enhanced Customer Experiences. *Technium Business and Management*, 7, 24-39.
- Gliem, J. A., & Gliem, R. R. (2003.). Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales. In *Midwest research-to-practice conference in adult, continuing, and community education* (Vol. 1, pp. 82-87).
- Creswell, J. D., Pacilio, L. E., Lindsay, E. K., & Brown, K. W. (2014). Brief mindfulness meditation training alters psychological and neuroendocrine responses to social evaluative stress. *Psychoneuroendocrinology*, 44, 1-12.
- Huang, M. C., Kang, M. P., & Chiang, J. K. (2020). Can a supplier benefit from investing in transaction-specific investments? A multilevel model of the value co-creation ecosystem perspective. *Supply Chain Management: An International Journal*, 25(6), 773-787.
- Iranmanesh, M., Ghobakhloo, M., Nilashi, M., Tseng, M. L., Yadegaridehkordi, E., & Leung, N. (2022). Applications of disruptive digital technologies in hotel industry: A systematic review. *International Journal of Hospitality Management*, 107, 103304.
- Islam, M. R., Carvalho, I., & Loureiro, S. M. C. (2024). Value Co-Creation in Hotels: the views of Hotel Employees. *BBR. Brazilian Business Review*, 21(5), e20221390.
- Khine, P. K., Mi, J., & Shahid, R. (2021). A Comparative Analysis of Co-Production in Public Services. *Sustainability* 2021, 13: 6730.
- Liu, L. (2024). *From click to boom: The political economy of e-commerce in China*. Princeton University Press.
- Miller, C. A., & Wyborn, C. (2020). Co-production in global sustainability: Histories and theories. *Environmental Science & Policy*, 113, 88-95.
- Negro, P. (2022). *The Smart Hotel: a contactless and digital journey towards sustainability in Malta*. The Online Open Access Repository of the Institute of Tourism Studies (Malta).
- Pianta, M., & Antonucci, T. (2002). " Employment effects of product and process innovations in Europe", Special issue on Innovation, Growth and Employment a cura di Michie J., Oughton C. e Pianta M. *International Review of Applied Economics*, 16, 295-307.
- Saha, V., Goyal, P., & Jebarajakirthy, C. (2022). Value co-creation: a review of literature and future research agenda. *Journal of Business & Industrial Marketing*, 37(3), 612-628.
- Sarmah, B., Kamboj, S., & Rahman, Z. (2017). Co-creation in hotel service innovation using smart phone apps: an empirical study. *International Journal of Contemporary Hospitality Management*, 29(10), 2647-2667.

- Shin, H., Perdue, R. R., & Kang, J. (2019). Front desk technology innovation in hotels: A managerial perspective. *Tourism Management*, 74, 310-318.
- Sürücü, L., & Maslakci, A. (2020). Validity and reliability in quantitative research. *Business & Management Studies: An International Journal*, 8(3), 2694-2726.
- Tian, J. (2024). Does technological innovation have an impact on employment in the hospitality industry? *International Journal of Contemporary Hospitality Management*, 36(4), 1025-1043.
- Torfin, J., Sørensen, E., & Breimo, J. P. (2023). When Norway met co-creation: the import, diffusion, and onboarding of a magic concept in public administration. *International Public Management Journal*, 26(5), 667-686.
- Wang, H., & Wang, M. (2020). Effects of technological innovation on energy efficiency in China: Evidence from dynamic panel of 284 cities. *Science of the total environment*, 709, 136172.



تأثير الابتكار التكنولوجي على الإنتاج المشترك والإبداع المشترك في فنادق البحر الأحمر

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المخلص

معلومات المقالة

إن الابتكار في التكنولوجيا، بما في ذلك النكاء الاصطناعي والروبوتات والأدوات الرقمية، يحسن فعالية الخدمة ويخفض النفقات ويجعل تجارب العملاء المخصصة ممكنة. يعزز الإنتاج المشترك المساءلة المشتركة وزيادة رضا العملاء من خلال التأكيد على المشاركة النشطة للعملاء في تصميم الخدمة وتقديمها. وعلى نحو مماثل، يستلزم الإبداع المشترك خلق القيمة التعاونية، حيث تعمل الفنادق والرعاة معًا لخلق تجارب مميزة ومخصصة تزيد من الرعاية والثقة. يوضح الجمع بين هذه المكونات كيف تمكن التطورات التكنولوجية الممارسات التعاونية والتشاركية، والتي تساعد الفنادق على فهم احتياجات رعاتها بشكل أفضل وتحسين جودة الخدمة وتجربة النمو التنافسي وطويل الأجل. تبحث هذه الدراسة في تأثير الابتكار التكنولوجي على الإنتاج المشترك والإبداع المشترك في فنادق البحر الأحمر، مع التركيز على كيفية تعزيز التقنيات الحديثة لتجارب الضيوف والكفاءة التشغيلية. يهدف البحث إلى تقييم العلاقة بين الابتكار التكنولوجي والممارسات التعاونية مع العملاء من حيث الإنتاج المشترك والإبداع المشترك. تم جمع البيانات من عينة مكونة من 256 مديرًا في فنادق البحر الأحمر باستخدام استبيان منظم لقياس الابتكار التكنولوجي والإنتاج المشترك والإبداع المشترك. تكشف النتائج عن وجود علاقة إيجابية قوية بين الابتكار التكنولوجي والإنتاج المشترك ($R = 0.662$) والإبداع المشترك ($R = 0.659$)، مما يشير إلى تأثيرات ذات دلالة إحصائية. وتخلص الدراسة إلى أن الابتكار التكنولوجي يعزز العمليات التفاعلية بين الفنادق والعملاء، مما يعزز رضا العملاء والميزة التنافسية. وتوصي الفنادق بتبني التقنيات المبتكرة وإشراك العملاء بنشاط في تصميم الخدمة لتحقيق الاستفادة طويلة الأجل.

الكلمات المفتاحية
الابتكار التكنولوجي؛
الإنتاج المشترك؛
الإبداع المشترك؛
البحر الأحمر.

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