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**THE ROLE OF VALUE CO-
CREATION IN THE LEISURE
SERVICES SECTOR, WITH SPECIAL
REFERENCE TO ITS IMPACT ON
USER SATISFACTION AND
LOYALTY – EMPIRICAL RESEARCH
AMONG YOUNG ADULTS IN
HUNGARY**

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ABSTRACT. The study examines the role of value co-creation in the field of leisure services, with a particular focus on its impact on user satisfaction and loyalty. The research was based on an adaptation of Ranjan and Read's model and drew on data from an online survey of 970 respondents. According to the results of the PLS-SEM analysis, the dimensions of knowledge, interaction, experience, personalization, and relationship have a significant positive effect on value co-creation, while equity did not show a relevant influence. The model showed strong explanatory power ($R^2=0.816$) and confirmed the hypotheses that value co-creation increases satisfaction experienced during co-creation ($R^2=0.707$), which also has a positive effect on overall satisfaction and loyalty. The results contribute to the development of service-dominant logic on a theoretical level, pointing out that the main drivers of value co-creation are the experiential, interactive, and relational dimensions. On a practical level, the study emphasizes that the success of leisure services depends on creating emotionally engaging, personalized guest experiences that increase satisfaction and loyalty in the long term.

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Introduction

In tourism and hospitality research, service-dominant logic (S-D logic) has shifted attention toward value co-creation (VCC) (Rihova et al., 2015, p. 359). Value co-creation describes situations where consumers play an active "contributory" role in the value creation process, resulting in the joint creation of service experiences (Zwick et al., 2008). The reason for the dynamic growth in interest in VCC is that it can be a strategic tool for gaining a competitive advantage in the tourism market (Blazquez-Resino et al., 2015). The expansion of information and communication technologies, mobile applications, and consumer knowledge has amplified the opportunities and expectations for co-creation of experiences (Buhalis, 2020). The spread of digital interactions has also enabled "mass customization," which has become one of the key mechanisms of co-creation (Neuhofer et al., 2014).

Previous studies have concluded that co-creation has a positive effect on consumer behavior (e.g., Prebensen & Xie, 2017; Tu et al., 2018). High-level co-production and value creation during use promote more efficient use of guests' resources, which ultimately leads to an increase in their well-being (Vargo & Lusch, 2016). In other words, this research argues that guests who participate in successful VCC develop positive cognitive evaluations, which manifest themselves on an emotional level as joy or other favorable feelings. We can add that VCC also mobilizes psychological resources, such as a sense of self-efficacy and competence, which are also related to well-being (Deci & Ryan, 2000). Guests' emotions play a key role in the VCC process (Magnini & Roach, 2014; Payne, Storbacka, & Frow, 2008) and are fundamental building blocks of joyful, hedonic experiences (Wu & Yang, 2018). At the same time, other studies have emphasized that, in addition to emotions, psychological involvement and identification are also decisive in the VCC process (Campos et al., 2018). At the same time, other studies have emphasized that, in addition to emotions, psychological involvement and identification are also decisive factors in the VCC process (Campos et al., 2018). The role of fairness and perceived justice has also been emphasized in tourism behavior research, particularly in the literature on complaint handling and organizational behavior (Nikbin et al., 2016; Su & Hsu, 2013). Perceived fairness refers to the value judgment that individuals form when they compare their inputs and outcomes (Adams, 1965). Accordingly, fairness theory is particularly relevant in the context of hotel guests, who "cooperate" with the hospitality organization (Zwick et al., 2008) and contribute their own resources - such as their knowledge, skills, and time - to value creation. Since co-creation is a typical feature of the tourism and leisure services (Neuhofer et al., 2015), understanding which VCC dimensions have a positive impact on the guest experience is a must. Nevertheless, Hungary has not seen any extensive empirical study that explores the relationship between VCC dimensions and the experience felt by tourists, as well as the resulting effects.

1. Literature review

1.1. Value Co-Creation

The importance of VCC in tourism and hospitality has grown in the 2020s, particularly thanks to the integration of digital ecosystems, artificial intelligence, and sustainability considerations, which create new opportunities for deepening consumer participation and service provider collaboration. The development of the digital economy and smart technologies is placing value co-creation on a new footing, as participants in network- and platform-based ecosystems jointly shape innovation processes and usage value (Vasa & B ark anyi, 2023). Recent research emphasizes that co-creation is not only linked to the physical service

environment, but also to digital interactions and personalization supported by smart technologies, which significantly increase the depth and value of consumer experiences (Volchek et al., 2020). In this context, digital entrepreneurship studies show that customers' active participation in digital business environments jointly creates value and strengthens satisfaction and loyalty (Ptashchenko et al., 2025). Similarly, research on strategic orientation highlights that digital technology adoption enables firms and customers to collaborate more effectively in value creation, thereby enhancing both organizational performance and user experience (Zhou et al., 2026). Online influencer-based interactions are particularly effective in shaping co-created value and consumer intent, as authenticity and influencer-consumer fit directly strengthen co-creation intent and behavioral outcomes (Hasan et al., 2024). Value co-creation (VCC) can be defined as a dynamic and networked process in which multiple actors—often without knowing each other—mutually contribute to each other's well-being (Vargo & Lusch, 2016). According to Sthapit and Björk (2020, p. 3), "value co-creation means that all actors involved in the process want to benefit from the interaction." In our study, we apply Ranjan and Read's (2016) multidimensional, formative VCC construct, which consists of two theoretical basic dimensions: co-production and value-in-use. It is important to distinguish between the concepts of co-production and value co-creation (VCC). While the former focuses on the creation of a product or service, value co-creation involves the consumer's full internal involvement in the process, which goes beyond self-design, self-service, creativity, or new product development (Moreau & Herd, 2010; Kim & Srivastava, 2021). Thus, the concept of value co-creation only becomes complete when the consumer utilizes the result during use, i.e., the value is realized in the value-in-use (ViU) dimension (Sandström et al., 2008; Ng & Smith, 2023).

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1.2. Co-Production

According to Chan et al. (2010), co-creation occurs when a company gives consumers the opportunity to share information, make suggestions, and participate in decision-making. The concept of co-creation refers to direct or indirect "collaboration" with consumers, in which consumers actively participate in product or service design processes (Hu & McLoughlin, 2012; Ranjan & Read, 2020). This participation can take many forms: consumers can join corporate processes as peripheral actors (Auh et al., 2007), or they can be involved in a direct and proactive manner, for example through knowledge sharing and information provision (Boselli et al., 2008; Mahr et al., 2021).

According to Ranjan and Read (2016), co-production has three dimensions: knowledge sharing, fairness, and interaction.

Knowledge sharing occurs when a company promotes the involvement of consumers' knowledge, ideas, and creativity in the value creation process. Knowledge sharing is a fundamental and active resource for co-creation, which involves sharing consumers' knowledge, ideas, and creativity (Zhang & Chen, 2008). It plays a particularly important role in accurately articulating and shaping both current and future needs. The exchange of information between the company and the consumer is based on previously accumulated experience, innovative ideas, creative solutions, and knowledge derived from real-life

situations, thereby promoting competence building and joint value creation (Sawhney et al., 2021).

Tourism literature has highlighted the role of information, knowledge, and skills provided by tourists as prerequisites for value creation (Antón et al., 2018; Prebensen et al., 2018).

Fairness is a key factor in the success of co-creation, expressing the company's willingness to share control over management and value creation in order to empower consumers, as well as consumers' active intention to participate in joint value creation processes (Hoyer et al., 2010; see also Zhao et al., 2023). Fairness manifests itself in the company's customer focus (Prahalad & Ramaswamy, 2002), openness to sharing control, and the creation of a supportive and trusting atmosphere that promotes consumer involvement and shared responsibility (Fisher & Smith, 2011; Nguyen & Chen, 2022; Ramos et al., 2024).

According to Prebensen et al. (2018a), co-creation is a function of interaction. Interaction is the primary point of contact between the actors involved in co-creation, providing an opportunity to understand, share, and satisfy needs, as well as to assess and coordinate resources (Prahalad & Ramaswamy, 2004; Li et al., 2024). Interaction can take many forms: as participation (Grönroos & Ravald, 2011; Kohler et al., 2011; Pongsakornrungrungsilp & Schroeder, 2011), dialogue (Payne et al., 2008), or commitment (Zhang & Chen, 2008). These interactions give rise to complex exchanges that significantly increase the chances of innovative solutions emerging (Bagozzi et al., 2012; Martin et al., 2021). Interaction can also take place in real time through social media and mobile applications (Kamboj & Gupta, 2020). These interactions directly reinforce shared value creation and subsequent loyalty through the building of social capital-trust, structural relationships, and shared norms (Mishchuk et al., 2022).

1.3. Value-in-Use

Value can arise not only through interaction with the company and its offerings, but also through consumption, even if it is practically independent of the company's direct involvement or market exchange (Grönroos, 2006; Vargo & Lusch, 2004). Value-in-use is "a dynamic, situation-specific, meaning-laden, and phenomenological construct that arises when consumers use, experience, or personalize the value propositions offered by marketers in their own context" (Rihova et al., 2015, p. 357).

The concept of ViU goes beyond the classic framework of joint production, exchange, and ownership of a product or service, requiring consumers to learn how to use the product or service (Vargo & Lusch, 2004; Kowalkowski et al., 2021). Value is created during use, as consumers evaluate and determine the offer based on their specific context of use (Vargo & Lusch, 2004, Shi et al., 2024). ViU is realized through the synergistic application of the capabilities of active actors, whether physical (operand) or knowledge-based (operant) resources (Ballantyne & Varey, 2006; Ng et al., 2022). This usage process leads to the intertwining of transformation stages, when, for example, a wellness treatment gradually transforms from a mere service into a relaxation experience (Moeller, 2008; Salamin et al., 2021). ViU is based on a personal assessment of the consumer experience that goes beyond the functional characteristics of the product or service and includes individual motivations, expertise, actions, and performance (Edvardsson et al., 2010; Kim & Lee, 2022). Place-based, community-shaped space and service design—placemaking—clearly shows that value-in-use (ViU) is created collectively at the destination and converted into satisfaction and recommendation intent through memorable experiences (Priatmoko et al., 2021). In other words, value-in-use is the subjective benefit perceived during the consumption of a product and/or service (Prebensen et al., 2018). The greater the consumer involvement, the more the

hotel moves from joint production to value creation, where the emphasis is more on use, consumption, and the value-in-use dimension (Chathoth et al., 2013, 2018).

According to Ranjan and Read (2016), value-in-use consists of three components: experience, personalization, and relationship.

Consumer experiences are key to co-creating value (Prebensen et al., 2018). Experience refers to consumers' spontaneous, unconscious physical, cognitive, and affective responses to specific stimuli and their relationship (Edvardsson et al., 2005). Experience is an interaction based on empathy, emotions, and memorability that carries intrinsic value for the individual consumer (Lusch & Vargo, 2006; Kim & Park, 2023). On the one hand, experience appears as a "by-product" of the products and services provided by the company (Bolton et al., 2004), on the other hand, it stems from the way consumers interpret and connect these offerings in their own physical, cognitive, and emotional dimensions, thereby creating use value (Edvardsson et al., 2005; Nguyen et al., 2022).

The importance of personalization in value creation has been highlighted previously (Buhalis & Foerste, 2015; Volchek et al., 2020). Personalization occurs when value is created according to the unique needs of the consumer (Chathoth et al., 2013). Personalization refers to the uniqueness of the usage process, which can manifest itself in either actual usage or perceived usage experience, and in which value is shaped based on individual characteristics (Karpen et al., 2012; Lemke et al., 2011). The personalized experience can take various forms, such as the customer's deep immersion in the process (Chang & Hsu, 2024), the adaptive application of special skills and competencies (Edvardsson et al., 2005; Tsai et al., 2021), experiencing extraordinary and memorable experiences (Sandström et al., 2008; Lopez & Kim, 2023), and providing a personalized environment that supports individual usage processes (Macdonald et al., 2011; Kumar & Singh, 2023).

The relationship is the sum of interactions between the consumer and the offer, based on mutual and repetitive processes, which creates an active communication and engagement environment. This dynamic collaboration empowers consumers to develop new solutions and thus create value together (Bonsu & Darmody, 2008; Zhao & Wen, 2024). The relationship reveals different aspects such as collaboration (Sawhney et al., 2005; Nguyen et al., 2023), an outside-in approach that focuses mainly on the consumer perspective (Mohr & Sarin, 2009; Jones & Lee, 2021), and the sharing and usage of joint resources (Ng et al., 2009; Smith & Kumar, 2024), as well as in the form of reciprocity, trust, and mutual commitment (Chandler & Vargo, 2011; Zhang & Liu, 2022).

1.4. Value Co-Creation, Satisfaction, and Loyalty

In a value co-creation scenario, consumers are empowered to take the lead in making and tailoring the products or services, a process which by definition is beyond mere consumption and thereby allows them to become the creators of value which especially fits their needs and preferences (Edvardsson et al., 2011; Prahalad & Ramaswamy, 2004). Such an involvement and collaboration not only leads to the creation of more profound and personalized experiences which, in turn, have the power to significantly increase consumer satisfaction, but also can be seen as the basic mechanism behind it (Frow et al., 2021; Mahr et al., 2021). Besides, co-creation of value is not only evident in the product or service's functional benefits, but also in the generation of personal and social meanings during the consumption process, which in turn further deepens consumer commitment and satisfaction (Vargo & Lusch, 2004; Edvardsson et al., 2022). This reciprocal interaction and resource sharing is a win-win situation for both companies and customers as it supports firms' innovation and competitiveness potential while

they get to enjoy the benefits of long-term customer relationships (Nguyen & Oborn, 2022; Zhao & Wen, 2024).

The interactions, knowledge sharing, and joint problem solving that occur during collaboration strengthen trust and consumer loyalty to the company, as consumers experience a partnership in which their value is recognized and they play a significant role in the process (Buhalis & Sinarta, 2019; Kleinaltenkamp et al., 2021). Due to the community and network nature of co-creation, consumers are not only attached to the product or service, but also to the company's ecosystem, which results in sustainable commitment (Nguyen & Simkin, 2024). A number of researches emphasize that consumer delight and social interactions resulting from the process of value co-creation, contribute to the probability of repurchasing and word-of-mouth promotion, thus leading to the enhancement of customer loyalty and customer equity (Zhao & Wen, 2024; Sawhney et al., 2005).

Value co-creation, in particular, allows consumers to reinforce their own self-image and even gain new aspects of their identity because they perceive themselves as one of the main creators in the value creation process (Nguyen et al., 2022). This self-experience, which confirms consumer brand loyalty and the depth of consumer relationships is thus increasing further, is very important for achieving success in the market competition. In short, value co-creation goes beyond being just an innovation or marketing instrument and also represents a strategic approach that, through customer experience, interactive collaboration, and long-term loyalty, comprehensively integrates into a holistic value creation model (Frow et al., 2021; Mahr et al., 2021; Zhao & Wen, 2024).

Co-creation has been identified by previous tourism research as a positive influence on consumer evaluations of tourism and hospitality services (Xu et al, 2018), guest satisfaction (Ranjan & Read, 2014, Mathis et al., 2016; Prebensen & Xie, 2017), guest loyalty (Grissemann & Stokburger-Sauer, 2012), willingness to pay (Grissemann & Stokburger-Sauer, 2012; Tu et al., 2018), proactive guest behavior (Assiouras et al., 2019), and spending levels (Rong-Da Liang, 2017). The happiness of tourists related to their experiences can be positively influenced by co-creation (Buonincontri et al., 2017). Co-creation leads to heightened attention, involvement, and thus the memorability of the travel experience (Campos et al., 2017).

Recent empirical evidence supports the view that co-creation is the primary factor that influences consumer behavioral intentions and satisfaction, and its effect is further strengthened through digital and technological channels (Tunde-Ajayi, 2022).

Table 1 summarizes previous research findings on the relationship between VCC factors and satisfaction and loyalty, which we used to develop our hypotheses and construct our theoretical model.

Table 1. VCC factors, research results examining the relationship between satisfaction and loyalty

Relationships and hypotheses examined	Positive significant effect
Knowledge Value co-creation	Mahr et al., 2021; Nguyen & Oborn, 2022
Equity Value co-creation	Fisher & Smith, 2011; Kleinaltenkamp et al., 2021; Zhao et al., 2023
Interaction Value co-creation	Prahalad & Ramaswamy, 2004a; Edvardsson et al., 2011; Zhao & Wang, 2023
Experience Value co-creation	Edvardsson et al., 2011; Nguyen & Simkin, 2024
Personalization Value co-creation	Lemke et al., 2011;
Relationship Value co-creation	Madhavaram & Hunt, 2008; Kleinaltenkamp et al., 2021; Zhao & Wen, 2024
Value co-creation Co-creation satisfaction	Frow et al., 2021; Mahr et al., 2021
Co-creation satisfaction Satisfaction	Frow et al., 2021; Mahr et al., 2021
Satisfaction Loyalty	Frow et al., 2021; Zhao & Wen, 2024

Source: own compilation

Our hypotheses, based on a review of the literature, on which we later based our research model:

H1 Value co-creation is positively influenced by knowledge, equity, interaction, experience, personalization, and relationship.

H2 The degree of co-creation shows a positive correlation with user satisfaction during the co-creation activity.

H3 Satisfaction with co-creation shows a positive correlation with satisfaction with leisure services.

H4 Satisfaction with leisure services positively influences customer loyalty.

2. Methodological approach

The empirical model of the research (Figure 1) based on the work of Ranjan and Read (2014) and Lončarić et al. (2017), with the modification that the intermediate latent variables of co-production and value in use were not measured directly in order to avoid excessive fragmentation of the model (3rd order model). Their dimensions (knowledge, equity, interaction, experience, personalisation and relationship) constitute value co-creation, which we measured directly with five additional measurement variables.

Likert-type scales ranging from 1 to 7 were used for the measurement model, as shown in Table 3. The scales were developed based on the work of Ranjan and Read (2014).

The model was examined using the variance-based PLS-SEM method, which was performed using SmartPLS software, while IBM SPSS software was used for descriptive statistics and data cleaning.

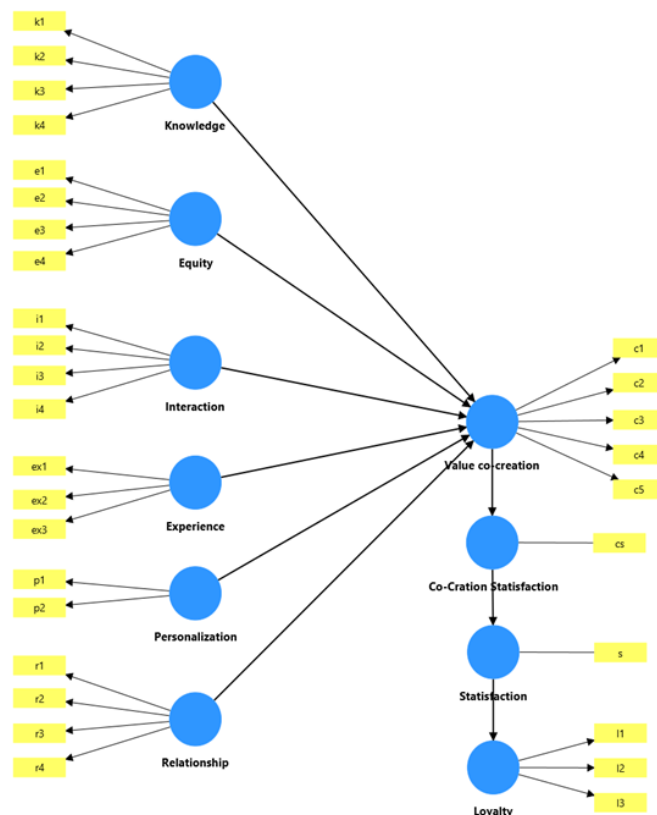


Figure 1. Structure of the empirical model

Source: own compilation

The data collection methodology was a questionnaire survey, which was conducted between December 2024 and January 2025 using an online questionnaire editor (Google Form). The questionnaire was sent to the respondents online with the help of interviewers. The survey was voluntary and anonymous. After data cleaning, the final sample size was 970 people. For the scales belonging to the value co-creation model, respondents were required to select one of the answer options, but they could refuse to answer the demographic background variables. The demographic data of the respondents are summarised in Table 2.

Table 2. Composition of the sample based on demographic variables

Background variable	Category	Number	Distribution (%)
Gender	Male	395	40.7
Gender	Female	575	59.3
Age	18-24	632	66
Age	25-34	326	34
Type of residence	Capital	80	8.2
Type of residence	County town	174	17.9
Type of residence	Other town	456	47
Type of residence	Village	256	26.4
Type of residence	Other	4	0.4
Highest level of education	Maximum 8 years of primary school	51	6.3
Highest level of education	Vocational training, technical school	182	18.7
Highest level of education	Secondary school leaving certificate	50	5.1
Highest level of education	Higher education	227	23.4
Income	Below average	174	17.9
Income	Average	655	67.5
Income	Above average	141	14.5
Marital status	Single without children	494	50.9
Marital status	Single with children	28	2.9
Marital status	Married/in a long-term relationship without children	297	30.6
Marital status	Married/in a long-term relationship without children	151	15.6

Source: own compilation

3. Conducting research and results

We examined the relationship between value co-creation and co-creation satisfaction, general satisfaction and loyalty using the PLS-SEM method. Table 3 shows the measurement variables associated with the latent variables of the model, their coding, and the mean and standard deviation values of the scales.

Table 3. Scales of the measurement model

Latent variables	Code	Measurement variables	Mean	Std. Dev.
Knowledge	k1	The service provider was open to my ideas and suggestions regarding its existing services and my suggestions for improvement.	5.16	1.80
Knowledge	k2	The service provider provided me with sufficient information about the services.	5.56	1.56
Knowledge	k3	I am happy to devote time and energy to sharing my ideas and suggestions with the service provider and helping to further develop its products and processes.	5.21	1.72

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Knowledge	k4	The service provider has given me the opportunity to make suggestions and contribute ideas.	5.18	1.77
Equity	e1	I was able to convey my opinions and requirements to the service provider without any difficulties.	5.35	1.73
Equity	e2	The service process meets my expectations.	5.53	1.59
Equity	e3	During the process, the service provider considered my role to be just as important as their own.	5.38	1.64
Equity	e4	We played an equal role in determining the final outcome of the process.	5.19	1.72
Interaction	i1	I was able to easily express my special needs during the service process.	5.29	1.68
Interaction	i2	The service provider provided service users with essential information about the process.	5.48	1.63
Interaction	i3	The service provider provided service users with the opportunity to engage in dialogue regarding business processes.	5.24	1.74
Interaction	i4	I had to use my own knowledge and skills to get the most out of the service.	5.21	1.74
Experience	ex1	It was a memorable experience.	5.83	1.59
Experience	ex2	It is possible that service users had different experiences depending on the nature of their involvement in the service process.	5.42	1.58
Experience	ex3	By experiencing the process and trying new things, service users were able to improve it.	5.34	1.64
Personalisation	p1	The benefit and value derived from the service depended on the users and the terms of use.	5.38	1.65
Personalisation	p2	The service provider endeavoured to meet the individual needs of all service users.	5.57	1.64
Relationship	r1	The support of the service provider is necessary for consumers to fully enjoy the service.	5.52	1.59
Relationship	r2	I felt a connection or relationship with the service provider.	5.21	1.72
Relationship	r3	The service provider has an enthusiastic fan base.	5.07	1.80
Relationship	r4	The service provider owes its popularity to its enthusiastic fans.	4.91	1.90
Co-creation	c1	Thinking together with the service provider allowed me to participate in a larger community dialogue, which I enjoyed.	5.02	1.82
Co-creation	c2	I felt comfortable thinking together with the service provider.	5.34	1.71
Co-creation	c3	The leisure situation contributed to effective cooperation with the service provider.	5.32	1.70
Co-creation	c4	My active participation enhanced my experience.	5.51	1.64
Co-creation	c5	I was confident that I would be able to cooperate with the service provider.	5.57	1.58
Co-creation satisfaction	cs1	My cooperation and joint thinking with the service provider paid off.	5.42	1.67
Satisfaction	s1	Overall, I am satisfied with the trip/programme.	5.74	1.59
Loyalty	l1	I will probably return to this service provider in the future.	5.53	1.66
Loyalty	l2	I would recommend this service provider to my friends.	5.66	1.59
Loyalty	l3	Next time, I would choose the same service provider with whom I worked and thought about the service process.	5.46	1.65

Source: own compilation

The descriptive statistics of the scales suggest relatively homogeneous responses, as the relative standard deviation is around 30% for all questions (minimum relative standard deviation: 27%, maximum 38%). Furthermore, it can be concluded that the respondents in the sample tended to agree with the statements.

Figure 2 shows the adapted results of the value co-creation model. The arrows in the figure show the path coefficients and the significance values of the t-test in brackets.

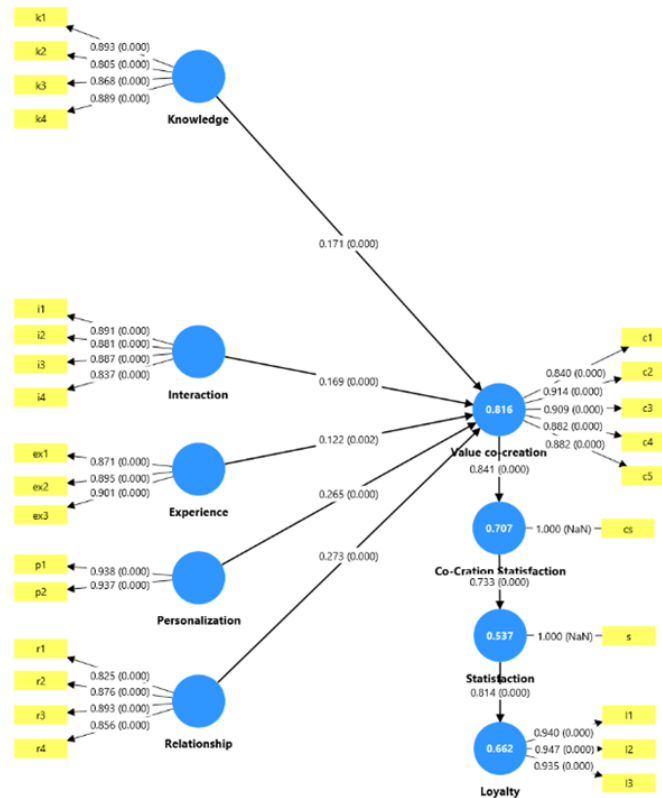


Figure 2. Results of the PLS-SEM analysis of the adapted value co-creation model
Source: own compilation

Based on the results, we had to remove equity from the model, as we could not confirm a significant relationship between it and value co-creation (coeff. equi. → value co-c. = 0.013; $p=0.803$). The adjusted R² for value co-creation is 0.815 (R² = 0.816), which can be considered outstanding, meaning that the five measurement variables established for measuring value co-creation (c1...c5) and the five latent variables remaining in the model (knowledge, interaction, experience, personalisation and relationship) can explain 81.6 per cent of the variance in value co-creation. It is also important to mention here that, in line with the assumptions, the latent variables examined have a positive effect on value co-creation, with relationship (coeff. relat. → value co-c. = 0.273; $p<0.01$), while experience has the smallest (coeff. exp. → value co-c. = 0.122; $p<0.01$). Based on these results, we consider hypothesis H1 to be partially accepted, i.e. value co-creation is significantly and positively influenced by knowledge, interaction, experience, personalisation and relationship, while we reject the effect of equity in relation to our sample.

In the case of co-creation satisfaction, the adjusted R² value is 0.707, which can also be considered a strong explanatory power, and based on the results, we accept hypothesis H2, i.e. the degree of co-creation shows a positive correlation with user satisfaction during co-creation activities (coeff. value co-c. → co-c. satisf. = 0.841; $p<0.01$).

Co-creation satisfaction also has a positive, significant effect on overall satisfaction (coeff. co-c.statisf.→statis.= 0.733; $p < 0.01$), in this case with a corrected coefficient of determination of 0.537. Based on this, we also accept hypothesis H3, i.e. satisfaction with co-creation shows a positive correlation with overall satisfaction with leisure services.

Finally, with an adjusted R² of 0.662, loyalty significantly influences overall satisfaction (coeff. statisf.→loyalty= 0.814; $p < 0.01$), so our H4 hypothesis is also confirmed, i.e. overall satisfaction with leisure services at positively influences customer loyalty.

Indirect effects are not reported separately in the study, but they can be easily calculated as the product of direct effects (path coefficients) along the chosen path. For example, the indirect effect of knowledge on loyalty can be calculated as follows: $0.171 * 0.841 * 0.733 * 0.814 = 0.085$.

The reliability of the scales used in the measurement model was tested using Cronbach's alpha and the composite reliability index. The alpha values are: experience=0.876; interaction=0.897; knowledge=0.886; loyalty=0.935; personalisation=0.862; relationship=0.886; satisfaction=1; value co-creation=0.931; co-creation satisfaction=1. The CR index values are: experience=0.869; interaction=0.897; knowledge=0.888; loyalty=0.939; personalisation=0.862; relationship=0.887; satisfaction=1; value co-creation=0.933; co-creation satisfaction=1. Based on Hair et al. (2010) and Cronbach (1951) and the above results, the scales used can be considered reliable.

The convergent validity of the construct was confirmed based on Fornell – Larcker (1981), as the factor loading for all measurement variables exceeds 0.5, and the AVE value is also greater than 0.5 for all latent variables (AVE values: experience=0.791; interaction=0.764; knowledge=0.747; loyalty=0.884; personalisation=0.879; relationship=0.745; satisfaction=1; value co-creation=0.784). Furthermore, based on the HTMT criterion (since the HTMT value is less than 0.9 for all latent variable pairs), discriminant validity can also be established.

Conclusion

The results of the research confirm that value co-creation (VCC) in the field of leisure activities is a complex, multidimensional construct consisting of the elements of co-production and value-in-use. The empirical study showed that five of the six dimensions examined—knowledge sharing, interaction, experience, personalization, and connection—have a significant and positive effect on value co-creation, while equity (fairness, sense of control sharing) did not prove to be a determining factor. This result confirms that in today's service environment, social, experiential, and relational mechanisms play the most important role, while the perception of control and fairness may vary depending on the context.

The data reveal that interaction and relationship are the most influential factors leading to value creation, pointing out that VCC in leisure services is mainly a relationship- and experience-based concept, thus, less related to process- or procedure-based. This aligns with service-dominant logic (Vargo & Lusch, 2004), which claims that value is not an intrinsic feature of products or services, but is generated through the interactive integration of capabilities, knowledge, and emotions. The overwhelming importance of interaction is in line with the conclusions of earlier studies (Payne et al., 2008; Buhalis & Foerste, 2015), which stress the necessity for a continuous dialogue and commitment between the service provider and the customer. Correspondingly, the relationship aspect turned out to be a crucial element, thereby supporting Magnini and Roach's (2014) proposition that a relationship rooted in trust and reciprocity constitutes the emotional basis of the experience in hospitality.

The significant impact of experience and personalization further reinforces the approach that value lies in the experience during use (value-in-use) (Prebensen & Xie, 2017). For guests,

satisfaction and enjoyment stem not only from the functional outcome of the service, but also from the emotions, meanings, and self-reflective transformations associated with the experience. This is consistent with the theory of hedonic consumption (Holbrook & Hirschman, 1982), which views consumer value as an emotional and experiential construct rather than a purely utilitarian one. Guests therefore experience pleasure when participating in co-creation processes, while the experience contributes to the formation of their self-identity and self-expression (Nguyen & Simkin, 2024).

In contrast, the equity dimension did not show a significant effect, suggesting that perceptions of fairness and control sharing are not decisive factors in the experience-oriented service context. According to previous research (Fisher & Smith, 2011; Hoyer et al., 2010), equity is particularly important when consumers are functionally involved in the design or delivery of the service. Yet our findings indicate that in the case of a hedonic consumption, customers are more likely to seek an emotional connection, a genuine experience, and a personalized service rather than equally sharing the decision-making process. Therefore, the insignificant role of equity reveals a difference in context: consumers of leisure services become more sensitive to the emotional and sensory aspects than to fairness.

On a theoretical level, the study serves as a source of theoretical co-creation literature by providing empirical evidence for the interdependence of co-production and value-in-use. Most of the time, research treat these dimensions separately (Ranjan & Read, 2014), however, the current findings suggest that the influence elements originate mostly from the use phase, i.e., experience, personalization, and relationship, rather than from service design or production. This extends the VCC notion in theoretical terms as it signifies the engagement of the guest emotionally and the mutual relationship as the main cognitive mechanisms connecting VCC and guest enjoyment.

Furthermore, the causal chain shown in the model-value co-creation-co-creation satisfaction-satisfaction-loyalty-clearly demonstrates how jointly created experiences can be translated into lasting emotional and behavioral consequences. The finding agrees with the studies of Mathis et al., 2016; Grisseman & Stokburger-Sauer, 2012 and goes beyond cognitive evaluation theory (Bagozzi et al., 1999) by showing that emotional evaluation processes mediate the link between interactive value creation and hedonic well-being. Hence, VCC may be seen as a mere operational collaboration which has become, however, a transformative emotional process that fosters the customer's subjective well-being and deepens their relationship with the provider (or brand).

Essentially, these findings indicate that service providers should strive to establish participatory atmospheres where prosumers dialog, interact, and have personalized experiences. Experiential service encounters ought to be the focus of managers, whereby guests are given the liberty to express their preferences, co-create micro-experiences, and develop an emotional bond with the brand. Moreover, communication through real-time digital means (e.g., mobile apps, social media, messaging platforms like WhatsApp) is a way of involving users and, therefore, can be instrumental in the establishment of emotional connections that are consequential to the eventual long-term satisfaction and loyalty of the customer.

Moreover, the study reveals that justice by itself is not enough to raise the level of co-creation satisfaction. Management should therefore shift the focus of empowerment strategies from formal decision-making participation to emotional involvement - that is, guests should feel that they are valued, listened to, and contributing partners in success. Personalized interactions, empathetic communication, and an authentic service attitude are factors that can provide a lasting competitive advantage in the tourism ecosystem.

Like all empirical research, this study has its limitations. The insignificant effect of the equity dimension is probably due to the specific characteristics of leisure and experience-

oriented services; thus, it would be worth examining whether this pattern also exists in other service contexts—such as healthcare, education, or business environments—where functional cooperation and control sharing are more directly apparent.

Qualitative research might uncover the psychological processes of emotional co-creation, for example, how trust, empathy, involvement, and self-transformation impact the value creation process. It could serve as a complement to the quantitative findings of the present study and enrich the understanding of the guests' subjective experiences.

Studying people over time would give us the opportunity to see the delayed effects of contentment resulting from co-created experiences on brand loyalty, emotional attachment, and verbal promotion. Future research should include the destination and territorial dimensions in VCC analyses. The destination as a service ecosystem is a network of different actors—changes in local governments, service providers, local residents, and visitors—that engage in the creation of shared value (Buhalis & Sinarta, Y., 2019). Therefore, studying co-creation at the destination level can help in grasping the overall experience of a destination which is a result of the interactions between tourists, locals, and service providers. The idea of co-creation is particularly significant for the research on sustainable tourism and place-based value creation because value can be seen as created through the consumption of services as well as through emotional identification with the identity of the place. Consequently, subsequent research might consider how the spatial context, the culture, and the destination brand experience can affect guests' willingness to co-create, their experience, and their loyalty.

Moreover, cross-cultural comparisons may also be of additional value by helping to uncover how cultural factors e.g. power distance, collectivism, emotional expressiveness, or even attachment to place influence guests' perceptions of fairness, experience, and co-creation in different tourist destinations.

In summary, this research offers a new perspective on understanding value co-creation in the field of leisure services. The results show that experiential and relational dimensions are the main sources of co-created value. Guest satisfaction and loyalty do not stem solely from the efficiency or fairness of the service process, but from emotionally charged, personalized interactions that create opportunities for self-expression and meaning-making. By reinforcing the central role of value-in-use, the research is consistent with the service-dominant logic paradigm and emphasizes the active, emotionally engaged value-creating role of users in tourism services.

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