



From Goals to Engagement: The Impact of Achievement Goal Theory on Value Co-Creation in Fitness Clubs

Trang Quang LE¹, Thuy Thi Thu PHUNG²

Received: October 17, 2024. Revised: November 27, 2024. Accepted: December 05, 2024.

Abstract

Purpose: The increasing competition in the fitness industry has driven the need for clubs to better understand how to engage and retain members. This study examines the application of Achievement Goal Theory in the context of customer engagement and value co-creation within fitness clubs. The research aims to explore the psychological factors driving members' motivation, engagement, and retention, along with the role of value co-creation in enhancing customer experiences. **Research design, data and methodology:** A quantitative research design was adopted, with data collected from 364 fitness club members in Vietnam through structured surveys. The analysis employed structural equation modeling to assess the relationships between mastery goals, performance-approach goals, fitness club mastery goals, customer engagement, and value co-creation. **Results:** the research reveals that mastery and performance-approach goals significantly enhance customer engagement, which, in turn, positively influences value co-creation through co-production and value-in-use. **Conclusions:** These findings suggest that fitness clubs can improve member retention and satisfaction by fostering environments that support diverse motivational orientations and encourage active customer participation in service development. The study provides valuable insights for fitness managers to optimize engagement strategies and improve service distribution.

Keywords : Achievement goal theory, Customer engagement, Value co-creation, Member retention, Distribution strategies.

JEL Classification Code: M10, M31, M39

1. Introduction

The fitness industry has witnessed remarkable growth in recent years, evident in the rapid proliferation of fitness clubs, the diversification of service offerings, and the increasing number of gym-goers. This trend has yielded numerous benefits for public health and contributed significantly to improving the quality of life. Contemporary fitness clubs have expanded beyond traditional gym and

yoga services to encompass a wide array of activities such as Zumba, kickboxing, and CrossFit. These diverse offerings cater to a broad spectrum of fitness goals, from weight loss and general health improvement to strength training, flexibility enhancement, and social interaction. Fitness club managers and marketers have increasingly prioritized the implementation of innovative marketing strategies to attract and retain clientele. A pivotal aspect of this endeavor is fostering customer engagement. Customer

1 First Author. Lecturer, Faculty of Sport Science, Ton Duc Thang University, Ho Chi Minh City, Vietnam.

Email: lequangtrang@tdtu.edu.vn

2 Corresponding Author. Lecturer, Faculty of Sport Science, Ton Duc Thang University, Ho Chi Minh City, Vietnam.

Email: phungthithuy@tdtu.edu.vn

© Copyright: The Author(s)

This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/4.0/>) which permits unrestricted noncommercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

engagement is defined as “the intensity and frequency of interactions and connections that an individual has with a product or service or an organization, initiated by the customer or the organization” (Vivek et al., 2012). It reflects the degree of interest, loyalty, and attachment that customers exhibit toward a business.

According to Hollebeek et al. (2019) consumer engagement can foster value co-creation, a process where individuals actively participate in creating value together. Additionally, Grönroos (2012) defines this as collaborative efforts between parties to enhance the worth of a product or service. Other studies define customer engagement as the level of involvement and connection an individual has with an organization's offerings or activities. This engagement can be initiated by either the customer or the company (Vivek et al., 2012). Given that customers, rather than firms, ultimately determine the value of a service (Vargo & Lusch, 2016), customer engagement is closely linked to value co-creation (Huettermann et al., 2019). Value co-creation extends beyond traditional transactions, involving a broader exchange of resources between companies and consumers. Advanced technologies facilitate these exchanges by providing platforms for interaction among and with customers (Brodie et al., 2013). Recent research in sport management has explored value co-creation, focusing on events and fans (Grohs et al., 2020; Kolyperas et al., 2019; Koenig-Lewis et al., 2018).

In the context of fitness clubs, patrons seek not merely a venue for exercise but also a supportive community where they feel welcomed and motivated to attain their health and fitness objectives. Cultivating a congenial and supportive training environment is instrumental in establishing robust customer engagement. This can be accomplished by organizing community events and social activities, designing comfortable and convenient training spaces, and offering personalized training and comprehensive nutritional support. By creating a home-away-from-home atmosphere where members feel connected to a larger community, fitness clubs become more than just places to exercise; they become spaces where individuals find inspiration and motivation to achieve their personal goals. Organizing community events, designing comfortable training spaces, and offering personalized training services are key factors in fostering a supportive and friendly environment, thereby strengthening the bond between members and the club. To cultivate a cohesive fitness community, it is imperative to foster robust bonds between members and staff. This can be achieved through personalized training and support from experienced instructors, complemented by the use of fitness tracking applications and the establishment of online community forums. Such initiatives empower clients to attain their fitness goals while simultaneously cultivating a sense of

belonging and camaraderie.

To establish a more comprehensive understanding of the relationship between customer engagement, value co-creation, and psychological factors, this study proposes integrating Achievement Goal Theory (AGT) into the fitness club context. AGT is a well-established motivational theory that has been widely applied in the fields of sport and exercise psychology, providing valuable insights into individuals' achievement goals and their impact on motivation and behavior (Ames, 1992; Dweck, 1986; Nicholls, 2017). Numerous research articles have investigated the relationship between AGT and engagement, highlighting how individuals' achievement goals can significantly impact their involvement and connection to activities or organizations. For instance, Anderman and Patrick (2012) explored how student achievement goals relate to self-beliefs and classroom climate within educational settings. Simultaneously, Wolters (2004) examined how students' goal structures and orientations serve as predictors of their motivation, cognition, and academic success. Moreover, Jiang and Zhang (2021) further contributed to this discourse by analyzing the influence of university instructors' teaching styles on students' agentic engagement in English as a Foreign Language learning, integrating AGT and Self-Determination Theory. While research on AGT and engagement has been conducted in educational and language learning settings, its application to fitness clubs remains relatively unexplored. This oversight presents an opportunity for further investigation into how achievement goals can influence member engagement and retention in fitness contexts. This study investigates the role of AGT in driving customer engagement and value co-creation within fitness clubs. Specifically, the study examines the relationships between mastery goals, performance-approach goals, fitness club mastery goals, customer engagement, and value co-creation. The contributions of this research are threefold. First, it extends the application of AGT beyond educational and sports contexts into fitness clubs, providing insights into psychological factors influencing customer motivation and engagement in this sector. Second, this study empirically confirms the significant role of customer engagement in facilitating value co-creation, thereby offering practical implications for fitness club managers aiming to enhance member retention and satisfaction. Third, implementing efficient distribution strategies is crucial for meeting the diverse needs of fitness club members. By understanding the psychological motivations of members, clubs can tailor their service offerings and resource allocation to maximize member satisfaction. Customer engagement plays a pivotal role in this process, as it allows clubs to co-create value with their members and optimize service delivery methods. Through active listening and feedback mechanisms, clubs can identify evolving member

preferences and adjust their resource distribution accordingly. This ensures that the right services are delivered at the right time, enhancing the overall member experience and driving long-term loyalty. Therefore, this research proposes the following objectives:

- (a) utilize AGT to identify the psychological factors influencing members' motivation to engage in fitness club activities,
- (b) examine the relationship between member engagement and value co-creation activities,
- (c) provide insights into the role of engagement in creating value and positive experiences for fitness club members based on their achievement goals.

2. Literature Review

2.1. Achievement Goal Theory

Achievement goal theory (Dweck, 1986; Nicholls, 2017), is a theoretical framework that explains how individuals' goals influence their motivation, learning, and performance. Rooted in educational and sports psychology, AGT has become a valuable tool for understanding and predicting learning behaviors and physical activities. Several studies have explored the relationship between AGT and sport motivation, sport involvement, and sport engagement. Harwood et al. (2008) provide a comprehensive overview of achievement goal theories in sport, highlighting their relevance in various sport contexts. Roberts and Nerstad (2020) offer a detailed analysis of AGT in the context of sport and physical activity, discussing its key concepts and applications. Furthermore, Wang et al. (2016) applied AGT to predict physical activity intention and behavior, demonstrating its practical utility in understanding health-related behaviors. Anderman et al. (2022) further explored the connection between AGT and engagement, providing insights into how individuals' goals can influence their active participation and involvement in learning or physical activities.

According to Elliot and Harackiewicz (1996), AGT identifies three primary goal orientations: mastery, performance approach, and performance avoid. Additionally, Butler (2000) demonstrated that individuals with different goal orientations seek different types of information. Individuals with mastery goals tend to seek information that aids understanding and improvement, while those with performance goals focus on comparative information. These goal orientations influence not only information-seeking but also how individuals interact with their environment and seek assistance. This finding can be extrapolated to the fitness club context, where members' goal orientations may influence their engagement with club resources, activities

and staff. This study proposes applying AGT to fitness club membership, focusing on mastery goals, performance-approach goals, and fitness club mastery goals. Mastery goals emphasize personal growth and skill improvement, while performance approach goals focus on comparison and achievement, and fitness club mastery goals involve developing within the club environment.

2.2. Customer Engagement

Customer engagement in fitness clubs has become a crucial factor in the increasingly competitive health and wellness industry. It refers to the emotional connection and active participation of members in their fitness journey within the club environment. Engaged customers are more likely to consistently attend workouts, participate in club activities, and maintain long-term memberships (Brodie et al., 2011). In the context of fitness clubs, engagement encompasses various dimensions, including behavioral, cognitive, and emotional aspects (Hollebeek et al., 2014). High levels of customer engagement in fitness clubs are associated with improved member retention, positive word-of-mouth referrals, and increased lifetime value of customers (Gao & Bai, 2014). Consequently, understanding the drivers of engagement, particularly through the lens of AGT, can provide valuable insights for fitness club managers in developing strategies to enhance member experiences and foster long-term relationships.

When members set goals to develop skills, knowledge, and improve themselves, they tend to feel satisfied and happy with their progress (Elliot & McGregor, 2001). Besides, the success in achieving mastery goals creates a sense of pride and confidence, thereby strengthening their connection to the fitness club (Butler, 2000). Additionally, performance-approach goals reflect not only the need for self-improvement but also the desire for self-expression among fitness club members (Elliot & Harackiewicz, 1996). Instead of solely focusing on personal development, they seek opportunities to showcase their abilities and achievements in a competitive environment. Engaging in competition with other members to surpass or achieve better results is not only part of self-improvement but also a way to express oneself and make an impression (Butler, 2006).

In a supportive fitness club environment, members can feel stimulated and excited when they have the opportunity to participate in competitive activities where they can challenge and defeat their opponents (Duda & Nicholls, 1992). Finally, fitness clubs are seen as places where members focus on developing and improving themselves, and the supportive relationships among them are considered very important by sports managers. By sharing experiences, encouraging each other, and working towards common goals, members not only create a strong sense of belonging

but also promote a sense of community within the fitness club (Ryan & Deci, 2000). This supportive environment not only makes members feel comfortable and confident but also provides motivation to continue training and improving themselves (Ntoumanis, 2001). Research has shown that mastery goals are linked to higher levels of intrinsic motivation and engagement in physical activities (Standage et al., 2003; Cerasoli & Ford, 2014; Xiang et al., 2017). Individuals who focus on personal mastery tend to have better emotional well-being and satisfaction with their fitness experiences (McAuley et al., 2005; Vansteenkiste et al., 2006). Additionally, performance-approach goals can enhance engagement by fostering a competitive atmosphere that motivates individuals to improve their performance relative to others (Linnenbrink, 2005). This competitive drive is essential in environments like fitness clubs where social comparison can spur participation (Kelley & Thibaut, 1978). Additionally, fitness club mastery goals create an environment where members feel encouraged to pursue personal growth and improvement, leading to increased engagement (Hein et al., 2004; Deci & Ryan, 2000). The emphasis on skill development within the club context can significantly enhance members' commitment to their fitness journey (Cameron & Pierce, 1994).

Importantly, working together towards developmental goals in a fitness club not only creates opportunities for members to learn and progress but also strengthens their connection to the club (Butler, 2000). This connection not only solidifies relationships among members but also promotes active participation in club activities, thereby creating a positive and supportive environment for personal and community development (Ryan et al., 2009). Therefore, this study proposes the following hypotheses:

- H1:** Mastery goals have a positive impact on engagement of fitness club members.
- H2:** Performance-approach goals have a positive impact on engagement of fitness club members.
- H3:** Fitness club mastery goals have a positive impact on engagement of fitness club members.

2.3. Value Co-creation

Value co-creation is a process where both service providers and consumers directly contribute to creating value from a product or service through interaction and collaboration (Prahalad & Ramaswamy, 2004). Instead of a one-way process from the provider to the consumer, value co-creation allows both parties to participate in creating and experiencing value in their own unique way (Vargo & Lusch, 2004). In the context of a fitness club, value co-creation can involve the service provider and members working together to create positive fitness and wellness experiences through interaction, knowledge sharing, and feedback (Grönroos &

Voima, 2013). Members can provide feedback on services, suggest improvements, and even participate in the development of new workout programs. Through this process, both the fitness club and its members contribute to creating the best possible experience, generating value not only for themselves but also for the broader club community (Payne et al., 2008).

The engagement of members in a fitness club can have a positive impact on value co-creation, including co-production and value-in-use. Co-production refers to "the collaboration between a customer and a firm to create a service" (Vargo & Lusch, 2008). In this context, co-production involves the process of creating value through knowledge sharing, joint decision-making, and service production (Etgar, 2008). Members who are strongly engaged with the fitness club may feel motivated and encouraged to share their opinions, suggestions, and contribute to improving the club's services. They may voluntarily dedicate their time and effort to sharing their knowledge and contributing to the improvement of service processes, workout content, or club activities (Jaakkola & Alexander, 2014). Members who feel welcomed and respected in the fitness club can easily collaborate with each other and with managers to drive the value creation process. Creating a friendly and trustworthy environment for contributions from all members will enhance co-production and make fitness club experiences richer and more diverse (Frow et al., 2016). In fitness clubs, where a sense of community and shared goals is often encouraged, customer engagement fosters an environment where members contribute to shaping their own experiences by co-producing services such as class suggestions or personalized training enhancements (Behnam et al., 2021). Similarly, studies in related contexts, like hospitality and healthcare, show that engaged customers exhibit higher involvement in co-creative practices, enriching their own experience and that of others (Chathoth et al., 2016; Oyner & Korelina, 2016).

Moreover, member engagement in a fitness club can also positively impact the creation of value-in-use. Value-in-use refers to "the customer's perception during service interaction through experiential value and related to the customer's use of the service while learning to use, maintain, and improve the service provided by the organization" (Prebensen et al., 2013). When members feel connected to the club, they can have a more positive and rewarding service experience (Brodie et al., 2011). Engagement can create a supportive and friendly environment where members feel welcomed and their interests are prioritized. This can lead to service personalization, making each member feel cared for and supported in their own unique way (Vivek et al., 2012). Such positive experiences can create a deep sense of connection and satisfaction, as well as increasing members' motivation to continue participating

and contributing to the value creation of the fitness club (Hollebeek et al., 2019). Moreover, research findings of Behnam et al. (2021) directly support the relationship between member engagement and value-in-use within the context of fitness clubs. The study suggests that consumer engagement fosters a sense of community and facilitates value co-creation through interaction and collaboration. This aligns with the concept of value-in-use, where members' positive experiences and service interactions contribute to their overall perception of value. Therefore, this study proposes the following hypotheses:

- H4:** Engagement of members in fitness club positively influences value co-creation in co-production.
- H5:** Engagement of members in fitness club positively influences value co-creation in value-in-use.

Based on a literature review, the research model applies AGT to explore the link between achievement goals and customer engagement within fitness clubs. Furthermore, it examines how engagement drives value co-creation. The conceptual model is illustrated in Figure 1.

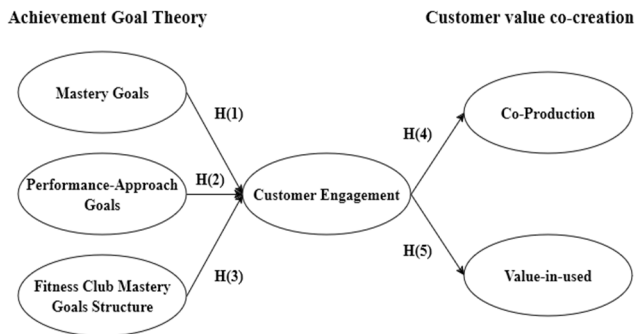


Figure 1: The research framework

3. Research Methodology

The study collected data from 387 members of commercial fitness clubs in Vietnam. After excluding 23 incomplete or unusable responses, the final sample size was 364. Participants were selected based on their membership in fitness clubs and required at least 3 months of experience. This ensured they had sufficient familiarity with the club's services to provide meaningful feedback on engagement and value co-creation. The survey was administered in person by volunteer students using a convenience sampling method.

The survey instruments were adapted from established scales. Achievement goals (mastery, performance approach, and fitness club mastery) were measured using a 5-point Likert scale based on the Patterns of Adaptive Learning Scales (PALS) (Midgley et al., 2000). Customer engagement and value co-creation were assessed using 7-point Likert

scales adapted from Hollebeek et al. (2014); Ranjan and Read (2016), respectively.

The data analysis for this study involved several methods. First, reliability and validity were assessed using Cronbach's alpha, composite reliability (CR), average variance extracted (AVE), the Fornell-Larcker criterion, and the Heterotrait-Monotrait ratio (HTMT). Structural equation modeling (SEM) was conducted via SmartPLS 3.0, supported by bootstrapping with 5,000 iterations to estimate path coefficients. The model's explanatory power was determined by R² values for key constructs, while variance inflation factors (VIF) were used to check for multicollinearity. Finally, hypothesis testing was carried out through the analysis of path coefficients, t-values, and p-values.

The study collected responses from a total of 364 participants, of which 56.6% were male and 43.4% were female. The majority of respondents were aged 25 to 45 years (78.0%), while the 18-24 years and above 45 years age groups comprised 14.0% and 8.0%, respectively. Besides that, participant membership duration varied, with 29.1% having been members for 7-9 months, followed by 10-12 months (24.2%), 3-6 months (19.8%), 1-2 years (17.9%), and more than 2 years (9.1%) (detailed in Table 1).

Table 1: Demographic of the Respondents

Demographic	Frequency (n = 364)	Percentage
Gender		
Male	206	56.6%
Female	158	43.4%
Age		
18 – 24	51	14.0%
25 – 45	284	78.0%
More than 45	29	8.0%
Occupation		
Student	39	10.7%
Employee	196	53.8%
Freelancer	91	25.0%
Businessman	38	10.4%
Income		
Under 500\$	41	11.3%
500 – 800\$	103	28.3%
Over 800 – 1000\$	138	37.9%
Over 1000\$	82	22.5%
Membership		
3-6 months	72	19.8%
7-9 months	106	29.1%
10-12 months	88	24.2%
1-2 year	65	17.9%
More than 2 years	33	9.1%

4. Results

Table 2 presents the findings related to the reliability and convergent validity of the research model, evaluated according to the criteria set forth by Hair et al. (2011). The factor loadings ranged from 0.754 to 0.921, which exceed the recommended threshold of 0.7 (Chin, 1998). This indicates strong correlations among the measured constructs.

Table 2: Construct Reliability and Validity Assessment

Variable	Outer Loading	VIF	α	CR	AVE	R ²
MG			0.911	0.934	0.738	N/A
MG1	0.902	3.419				
MG2	0.866	2.727				
MG3	0.811	2.067				
MG4	0.892	3.079				
MG5	0.820	2.105				
PG			0.909	0.933	0.735	N/A
PG1	0.911	3.622				
PG2	0.879	2.848				
PG3	0.802	1.962				
PG4	0.871	2.763				
PG5	0.821	2.160				
FG			0.885	0.921	0.745	N/A
FG1	0.904	3.039				
FG2	0.873	2.570				
FG3	0.806	1.869				
FG4	0.866	2.274				
CE			0.963	0.968	0.731	0.657
CE1	0.897	4.323				
CE2	0.876	3.619				
CE3	0.829	2.859				
CE4	0.890	4.051				
CE5	0.848	3.066				
CE6	0.899	4.439				
CE7	0.839	2.983				
CE8	0.897	4.326				
CE9	0.820	2.688				
CE10	0.844	2.982				
CP			0.936	0.951	0.795	0.632
CP1	0.914	3.886				
CP2	0.899	3.349				
CP3	0.877	2.887				
CP4	0.905	3.599				
CP5	0.863	2.689				
CP6	0.754	2.001				
VIU			0.953	0.961	0.779	0.492
VIU1	0.921	4.839				
VIU2	0.874	3.190				
VIU3	0.880	3.350				
VIU4	0.873	3.231				
VIU5	0.864	3.015				
VIU6	0.890	3.606				
VIU7	0.874	3.149				

Note: N/A: not available; CE: customer engagement, CP: co-production, FG: fitness club mastery goals, MG: mastery goals, PG: performance-approach goals, VIU: value-in-use.

The composite reliability (CR) values for the constructs ranged between 0.921 and 0.968, and Cronbach's alpha value ranged from 0.855 to 0.953. All exceed the 0.7 threshold, demonstrating satisfactory internal consistency reliability of the measurement scales (Fornell & Larcker, 1981). Convergent validity was confirmed by the average variance extracted (AVE) values, which ranged from 0.731 to 0.795, meeting the AVE criterion of greater than 0.5 (Chin, 1998). These results demonstrate that the measurement scales utilized in this study exhibit strong reliability and convergent validity.

To assess discriminant validity, the Fornell-Larcker criterion (Calder et al., 1981) and the heterotrait-monotrait ratio (HTMT) (Henseler et al., 2015) were employed. As shown in Table 3, the square root of the AVE for each construct was greater than its correlations with other constructs, thus meeting the Fornell-Larcker criterion. Additionally, the highest HTMT value observed across all constructs was 0.847, which falls below the recommended threshold of 0.9 (Henseler et al., 2015). These findings collectively indicate that the constructs in the measurement model exhibit adequate discriminant validity.

Table 3: The Assessment of Discriminant Validity by Fornell-Larcker and HTMT Criterion

	CP	CE	FG	MG	PG	VIU
CP	0.892	0.837	0.702	0.752	0.734	0.687
CE	0.796	0.855	0.709	0.838	0.763	0.732
FG	0.640	0.657	0.863	0.747	0.823	0.703
MG	0.695	0.787	0.674	0.859	0.847	0.720
PG	0.679	0.716	0.740	0.772	0.858	0.675
VIU	0.649	0.703	0.646	0.672	0.631	0.882

Note: the diagonal values represent the square roots of AVEs, above the diagonal are the values of HTMT values, and below the diagonal are the correlation coefficients between the construct values. CE: customer engagement, CP: co-production, FG: fitness club mastery goals, MG: mastery goals, PG: performance-approach goals, VIU: value-in-use.

Overall, the results suggest a satisfactory model fit, with good reliability and appropriate convergent and discriminant validity. Before proceeding with structural model analysis, multicollinearity was checked following Leguina (2015), caution that tolerance values below 0.20 or variance inflation factors (VIF) above 5 indicate multicollinearity concerns. The VIF values for this study ranged from 1.869 to 4.839, all below the threshold of 5, confirming that multicollinearity was not a significant issue. Moreover, as shown in Table 1, The R² values from the structural equation model provide a clear indication of the model's explanatory power. Specifically, the R² value for co-production was 65.7%, while value-in-use was explained by 49.2%, demonstrating that a significant portion of the variance in these constructs can be attributed to the factors included in the model. These high R² values suggest that the

achievement goals and customer engagement constructs are strong predictors of value co-creation outcomes in fitness clubs.

Table 4 presents the results of the structural model analysis. Mastery goals were found to have a significant positive effect on customer engagement ($\beta=0.539, p<0.01$), supporting H1. Performance-approach goals also had a significant positive effect on customer engagement ($\beta=0.183, p<0.01$), leading to the acceptance of H2. Additionally, fitness club mastery goals had a significant positive influence on customer engagement ($\beta=0.159, p<0.01$), providing support for H3.

Table 4: Hypotheses Testing Results

Hypothesis	Path Coefficient	t-value	p-value	Result
H1: MG → CE	0.539	9.02	0.000	Supported
H2: PG → CE	0.183	2.66	0.004	Supported
H3: FG → CE	0.159	2.94	0.002	Supported
H4: CE → CP	0.796	34.76	0.000	Supported
H5: CE → VIU	0.703	21.44	0.000	Supported
Indirect Effects				
MG → CE → CP	0.429	8.877	0.000	Supported
PG → CE → CP	0.145	2.637	0.004	Supported
FG → CE → CP	0.126	2.909	0.002	Supported
MG → CE → VIU	0.379	8.474	0.000	Supported
PG → CE → VIU	0.128	2.647	0.004	Supported
FG → CE → VIU	0.111	2.818	0.002	Supported

Note: CE: customer engagement, CP: co-production, FG: fitness club mastery goals, MG: mastery goals, PG: performance-approach goals, VIU: value-in-use

Moreover, customer engagement had a direct positive impact on both co-production ($\beta=0.796, p<0.01$) and value-in-use ($\beta=0.703, p<0.01$), supporting H4 and H5, respectively. This study also tested the indirect effects to clarify the mediating role of customer engagement between achievement goals—mastery goals, performance-approach goals, and fitness club mastery goals—and value co-creation outcomes. By exploring these indirect pathways, the study reveals the full impact of each achievement goal on both co-production and value-in-use. The results show that all relationships are significant in both direct and indirect effects, underscoring the essential role of customer engagement in converting achievement goals into value co-creation within fitness clubs.

5. Discussion and Implications

The findings of this study provide valuable insights into the relationship between achievement goals, customer engagement, and value co-creation in fitness clubs. The results support all five hypotheses, demonstrating the

significant role that achievement goals play in fostering customer engagement, which in turn promotes value co-creation through co-production and value-in-use.

First, the strong positive relationship between mastery goals and customer engagement aligns with previous research that links mastery goals with increased intrinsic motivation and engagement (Kaplan & Maehr, 2007; Sun & Shen, 2017). This suggests that fitness club members who prioritize personal growth and skill improvement are more likely to engage actively with the club's resources and community. Such engagement not only increases their participation in club activities but also enhances their persistence, leading to long-term fitness goals and sustained membership. Moreover, the positive impact of performance-approach goals on customer engagement, although weaker than mastery goals, indicates that the desire to demonstrate competence relative to others also plays a role in driving engagement. This finding is consistent with recent work by Bitrián et al. (2021), argue that competitive environments can boost engagement through self-expression and social comparison. In the fitness club context, this may manifest as members participating in group challenges, fitness competitions, or social media sharing, all of which can increase their involvement with the club.

Additionally, the significant influence of fitness club mastery goals on customer engagement highlights the importance of fostering an environment that supports personal growth and learning. The research findings of Vansteenkiste et al. (2006), shown that environments emphasizing mastery goals promote long-term engagement by focusing on self-improvement rather than competition. In fitness clubs, this could mean providing personalized coaching, progress tracking, and goal-setting tools that help members see their progress over time, thus driving continuous engagement.

The strong positive relationships between customer engagement and both co-production and value-in-use provide empirical support for the value co-creation framework (Jaakkola & Alexander, 2014). Engaged members actively contribute to the club's service development by sharing feedback and suggestions, which aligns with the notion of co-production as a joint process of value creation. Furthermore, value-in-use reflects the subjective experiences of members, as they integrate the club's offerings into their personal fitness practices, echoing the findings of Merrilees (2016).

The impact of engagement on co-production aligns with Etgar (2008) conceptualization of co-production as a process involving knowledge sharing and joint decision-making. In the fitness club context, this may involve members providing feedback on classes, suggesting new equipment, or even leading peer-to-peer training sessions. The strong relationship between engagement and value-in-

use supports Vargo and Lusch (2008) service-dominant logic perspective, which posits that value is ultimately determined by the beneficiary through use. Engaged members may derive greater value from their fitness club experiences due to their active participation and deeper integration of the club's resources into their personal fitness practices.

These findings have several practical implications for fitness club managers and marketers. By understanding the differing impacts of mastery and performance-approach goals on engagement, clubs can tailor their strategies to appeal to a broader range of motivational orientations. In particular, clubs could design programs that offer both individualized progression pathways and competitive fitness challenges to maximize engagement across different member segments (Costa et al., 2018). In addition, the strong link between engagement and value co-creation suggests that fitness clubs should prioritize strategies to enhance engagement. Offering personalized support, facilitating member interactions, and creating platforms for feedback and collaboration can help clubs foster a community-driven environment where members feel empowered to co-create value (Saarijärvi et al., 2013). This can lead to increased customer satisfaction and retention, as members derive greater value from their club experiences.

Besides that, the findings suggest that tailoring distribution strategies to align with members' achievement goals can significantly enhance member satisfaction. Specifically, mastery-oriented members may benefit from personalized coaching sessions, while performance-oriented members may thrive in competitive group activities. By designing and distributing services to cater to diverse segments, clubs can effectively reach members with varying needs, such as those with time constraints or those who prefer remote participation through virtual classes or online tracking tools. Additionally, organizing community events and fostering social interactions not only enhances engagement but also ensures equitable distribution of club resources, making all members feel valued. Insights on engagement can further inform scalable distribution models that balance high-demand offerings with niche services, while also refining logistical aspects of service delivery like class scheduling, instructor assignments, and equipment availability. This data-driven approach ensures a smoother distribution process that aligns with customer preferences and maximizes the impact of club resources.

Finally, the study revealed that AGT can effectively predict customer engagement within fitness clubs, subsequently leading to value co-creation. Mastery and performance-approach goals positively influence engagement, with mastery goals having a particularly strong effect. Engagement, in turn, facilitates both co-production and value-in-use. These findings suggest that fitness clubs can

enhance member retention by fostering motivational environments that support both individual and social aspects of achievement. This research contributes to the literature by extending AGT's application and providing empirical support for the critical role of customer engagement in value co-creation within the fitness industry.

6. Conclusions

This study demonstrated that AGT is a valuable framework for understanding customer engagement dynamics within fitness clubs. By examining how mastery and performance-approach goals impact engagement, the study reveals that mastery goals, in particular, drive sustained involvement with fitness club services. Enhanced customer engagement was shown to play a significant role in promoting value co-creation, both through members' collaborative contributions and through their individualized experiences. These insights underscore the importance of designing motivational environments in fitness clubs to foster both individual growth and community interaction, offering a pathway to improved member retention and satisfaction.

Furthermore, effective distribution is essential for ensuring the success of engagement-driven strategies in fitness clubs. By aligning service delivery with members' achievement goals, clubs can ensure that their resources are allocated efficiently, meeting the diverse needs and preferences of their clientele. This approach not only enhances value co-creation by fostering deeper customer involvement and satisfaction but also supports the sustainability of operations. Moreover, achievement goal-aligned distribution strategies help fitness clubs maintain a competitive edge by offering personalized, accessible, and community-driven experiences that cater to evolving customer expectations. This dual focus on engagement and strategic distribution supports both short-term operational efficiency and long-term growth.

While this study provides valuable insights, it also has limitations that point to directions for future research. The cross-sectional nature of the data limits causal inferences, and longitudinal studies could provide a more nuanced understanding of how achievement goals and engagement evolve over time. Additionally, investigating potential moderators of the relationship between achievement goals and engagement, such as individual differences or contextual factors, could further enhance our understanding of these dynamics in fitness club settings.

In conclusion, this study extends the application of achievement goal theory to the fitness club context and demonstrates its relevance to customer engagement and value co-creation. By highlighting the complex interplay

between members' goals, their engagement with the club, and the co-creation of value, this research provides a foundation for future investigations into how fitness clubs can optimize their services to meet the diverse needs and motivations of their members.

References

- Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of educational psychology*, 84(3), 261.
- Anderman, E. M., & Patrick, H. (2012). Achievement goal theory, conceptualization of ability/intelligence, and classroom climate. In *Handbook of research on student engagement* (pp. 173-191). Boston, MA: Springer US.
- Anderman, E. M., Patrick, H., & Ha, S. Y. (2022). Achievement goal theory and engagement. In *Handbook of research on student engagement* (pp. 511-528). Cham: Springer International Publishing.
- Behnam, M., Sato, M., & Baker, B. J. (2021). The Role of Consumer Engagement in Behavioral Loyalty through Value Co-Creation in Fitness Clubs. *Sport Management Review*, 24(4), 567-593.
- Bitrián, P., Buil, I., & Catalán, S. (2021). Enhancing user engagement: The role of gamification in mobile apps. *Journal of Business Research*, 132, 170-185.
- Brodie R. J., Ilic A., Juric B., & Hollebeek, L. (2013). Consumer engagement in a virtual brand community: an exploratory analysis. *Journal of Business Research*, 66(1), 105-114.
- Brodie, R. J., Hollebeek, L. D., Jurić, B., & Ilić, A. (2011). Customer engagement: Conceptual domain, fundamental propositions, and implications for research. *Journal of Service Research*, 14(3), 252-271.
- Butler, R. (2000). What learners want to know: The role of achievement goals in shaping information seeking, learning, and interest. In *Intrinsic and extrinsic motivation* (pp. 161-194). Academic Press.
- Butler, R. (2006). An Achievement Goal Perspective on Student Help Seeking and Teacher Help Giving in the Classroom: Theory, Research, and Educational Implications. In S. A. Karabenick & R. S. Newman (Eds.), *Help seeking in academic setting: Goals, groups, and contexts* (pp. 15-44). Lawrence Erlbaum Associates Publishers.
- Calder, B. J., Phillips, L. W., & Tybout, A. M. (1981). Designing research for application. *Journal of Consumer Research*, 8(2), 197-207.
- Cameron, J., & Pierce, W. D. (1994). Reinforcement, reward, and intrinsic motivation: A meta-analysis. *Review of Educational research*, 64(3), 363-423.
- Cerasoli, C. P., & Ford, M. T. (2014). Intrinsic motivation, performance, and the mediating role of mastery goal orientation: A test of self-determination theory. *The Journal of psychology*, 148(3), 267-286.
- Chathoth, P. K., Ungson, G. R., Harrington, R. J., & Chan, E. S. (2016). Co-creation and higher order customer engagement in hospitality and tourism services: A critical review. *International Journal of Contemporary Hospitality Management*, 28(2), 222-245.
- Chin, W. W. (1998). Commentary: Issues and opinion on structural equation modeling. *MIS quarterly*, vii-xvi.
- Costa, M. F. D., Costa, C. E., Angelo, C. F. D., & Moraes, W. F. A. D. (2018). Perceived competitive advantage of soccer clubs: a study based on the resource-based view. *RAUSP Management Journal*, 53(1), 23-34.
- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological inquiry*, 11(4), 227-268.
- Duda, J. L., & Nicholls, J. G. (1992). Dimensions of achievement motivation in schoolwork and sport. *Journal of Educational Psychology*, 84(3), 290-299.
- Dweck, C. S. (1986). Motivational processes affecting learning. *American psychologist*, 41(10), 1040.
- Elliot, A. J., & Harackiewicz, J. M. (1996). Approach and avoidance achievement goals and intrinsic motivation: A mediational analysis. *Journal of Personality and Social Psychology*, 70(3), 461-475.
- Elliot, A. J., & McGregor, H. A. (2001). A 2 × 2 achievement goal framework. *Journal of Personality and Social Psychology*, 80(3), 501-519.
- Etgar, M. (2008). A descriptive model of the consumer co-production process. *Journal of the Academy of Marketing Science*, 36(1), 97-108.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39.
- Frow, P., McColl-Kennedy, J. R., & Payne, A. (2016). Co-creation practices: Their role in shaping a health care ecosystem. *Industrial Marketing Management*, 56, 24-39.
- Gao, L., & Bai, X. (2014). A unified perspective on the factors influencing consumer acceptance of internet of things technology. *Asia Pacific Journal of Marketing and Logistics*, 26(2), 211-231.
- Grohs, R., Wieser, V. E., & Pristach, M. (2020). Value co-creation at sports events. *European Sport Management Quarterly*, 20(1), 69-87.
- Grönroos, C. (2012). Conceptualizing value co-creation: A journey to the 1970s and back to the future. *Journal of Marketing Management*, 28(13-14), 1520-1534.
- Grönroos, C., & Voima, P. (2013). Critical service logic: making sense of value creation and co-creation. *Journal of the Academy of Marketing Science*, 41(2), 133-150.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing theory and Practice*, 19(2), 139-152.
- Hair, J.F., Jr.; Hult, G.T.M.; Ringle, C.; Sarstedt, M. 2015. 'A primer on partial least squares structural equation modeling (PLS-SEM).' *SAGE Publications, Inc* 38: pp. 220-221.
- Harwood, C., Spray, C. M., & Keegan, R. (2008). Achievement goal theories in sport. In T. S. Horn (Ed.), *Advances in sport psychology* 3rd ed., pp. Human Kinetics.
- Hein, V., Mürer, M., & Koka, A. (2004). Intention to be physically active after school graduation and its relationship to three types of intrinsic motivation. *European Physical Education Review*, 10(1), 5-19.
- Henseler, J., Ringle, C. M., & Sarstedt, M. 2015. 'A new criterion for assessing discriminant validity in variance-based structural equation modeling.' *Journal of the academy of marketing*

- science 43: pp. 115-135.
- Hollebeek, L. D., Glynn, M. S., & Brodie, R. J. (2014). Consumer brand engagement in social media: Conceptualization, scale development and validation. *Journal of Interactive Marketing, 28*(2), 149-165.
- Hollebeek, L. D., Srivastava, R. K., & Chen, T. (2019). S-D logic-informed customer engagement: integrative framework, revised fundamental propositions, and application to CRM. *Journal of the Academy of Marketing Science, 47*(1), 161-185.
- Huettermann, M., Uhrich, S., & Koenigstorfer, J. (2019). Components and outcomes of fan engagement in team sports: The perspective of managers and fans. *Journal of Global Sport Management, 7*(4), 1-32.
- Jaakkola, E., & Alexander, M. (2014). The role of customer engagement behavior in value co-creation: a service system perspective. *Journal of Service Research, 17*(3), 247-261.
- Jiang, A. L., & Zhang, L. J. (2021). University teachers' teaching style and their students' agentic engagement in EFL learning in China: a self-determination theory and achievement goal theory integrated perspective. *Frontiers in Psychology, 12*, 704269.
- Kaplan, A., & Maehr, M. L. (2007). The contributions and prospects of goal orientation theory. *Educational Psychology Review, 19*(2), 141-184.
- Kelley, H. H., & Thibaut, J. (1978). *Interpersonal relations: A theory of interdependence*. New York: Wiley.
- Koenig-Lewis, N., Asaad, Y., & Palmer, A. (2018). Sports events and interaction among spectators: Examining antecedents of spectators' value creation. *European Sport Management Quarterly, 18*(2), 193-215.
- Kolyperas, D., Maglaras, G., & Sparks, L. (2019). Sports fans' roles in value co-creation. *European Sport Management Quarterly, 19*(2), 2001-220.
- Leguina, A. (2015). A primer on partial least squares structural equation modeling (PLS-SEM). *International Journal of Research & Method in Education, 38*(2), 220-221.
- Linnenbrink, E. A. (2005). The dilemma of performance-approach goals: the use of multiple goal contexts to promote students' motivation and learning. *Journal of educational psychology, 97*(2), 197.
- McAuley, E., Elavsky, S., Jerome, G. J., Konopack, J. F., & Marquez, D. X. (2005). Physical activity-related well-being in older adults: social cognitive influences. *Psychology and aging, 20*(2), 295.
- Merrilees, B. (2016). Interactive brand experience pathways to customer-brand engagement and value co-creation. *Journal of Product & Brand Management, 25*(5), 402-408.
- Midgley, C., Kaplan, A., Middleton, M., Maehr, M. L., Urdan, T., Anderman, L. H., Anderman, E., & Roeser, R. (1998). *Patterns of Adaptive Learning Scales (PALS)* [Database record]. *APA PsycTests*.
- Nicholls, J. G. (2017). Conceptions of ability and achievement motivation: A theory and its implications for education. In *Learning and motivation in the classroom* (pp. 211-238). Routledge.
- Ntoumanis, N. (2001). A self-determination approach to the understanding of motivation in physical education. *British Journal of Educational Psychology, 71*(2), 225-242.
- Oyner, O., & Korelina, A. (2016). The influence of customer engagement in value co-creation on customer satisfaction: Searching for new forms of co-creation in the Russian hotel industry. *Worldwide Hospitality and Tourism Themes, 8*(3), 327-345.
- Payne, A. F., Storbacka, K., & Frow, P. (2008). Managing the co-creation of value. *Journal of the Academy of Marketing Science, 36*(1), 83-96.
- Prahalad, C. K., & Ramaswamy, V. (2004). Co-creation experiences: The next practice in value creation. *Journal of Interactive Marketing, 18*(3), 5-14.
- Prebensen, N. K., Vittersø, J., & Dahl, T. I. (2013). Value co-creation significance of tourist resources. *Annals of Tourism Research, 42*, 240-261.
- Ranjan, K. R., & Read, S. (2016). Value co-creation: concept and measurement. *Journal of the academy of marketing science, 44*, 290-315.
- Roberts, G. C., & Nerstad, C. G. (2020). Motivation: achievement goal theory in sport and physical activity. In *The Routledge international encyclopedia of sport and exercise psychology* (pp. 322-341). Routledge.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68-78.
- Ryan, R. M., Williams, G. C., Patrick, H., & Deci, E. L. (2009). Self-determination theory and physical activity: The dynamics of motivation in development and wellness. *Hellenic Journal of Psychology, 6*(2), 107-124.
- Saarjärvi, H., Kannan, P. K., & Kuusela, H. (2013). Value co-creation: Theoretical approaches and practical implications. *European Business Review, 25*(1), 6-19.
- Standage, M., Duda, J. L., & Ntoumanis, N. (2003). A model of contextual motivation in physical education: Using constructs from self-determination and achievement goal theories to predict physical activity intentions. *Journal of educational psychology, 95*(1), 97.
- Sun, H., Li, W., & Shen, B. (2017). Learning in physical education: A self-determination theory perspective. *Journal of Teaching in Physical Education, 36*(3), 277-291.
- Vansteenkiste, M., Lens, W., & Deci, E. L. (2006). Intrinsic versus extrinsic goal contents in self-determination theory: Another look at the quality of academic motivation. *Educational psychologist, 41*(1), 19-31.
- Vargo, S. L., & Lusch, R. F. (2004). Evolving to a new dominant logic for marketing. *Journal of Marketing, 68*(1), 1-17.
- Vargo, S. L., & Lusch, R. F. (2008). Service-dominant logic: continuing the evolution. *Journal of the Academy of Marketing Science, 36*, 1-10.
- Vargo, S. L., & Lusch, R. F. (2016). Institutions and axioms: An extension and update of service-dominant logic. *Journal of the Academy of Marketing Science, 44*(1), 5-23.
- Vivek, S. D., Beatty, S. E., & Morgan, R. M. (2012). Customer engagement: Exploring customer relationships beyond purchase. *Journal of marketing theory and practice, 20*(2), 122-146.
- Wang, J. C., Morin, A. J., Liu, W. C., & Chian, L. K. (2016). Predicting physical activity intention and behaviour using achievement goal theory: A person-centred analysis. *Psychology of Sport and Exercise, 23*, 13-20.
- Wolters, C. A. (2004). Advancing achievement goal theory: Using goal structures and goal orientations to predict students' motivation, cognition, and achievement. *Journal of*

Educational Psychology, 96(2), 236.
 Xiang, P., Agbuga, B., Liu, J., & McBride, R. E. (2017).
 Relatedness need satisfaction, intrinsic motivation, and

engagement in secondary school physical education. *Journal of Teaching in Physical Education*, 36(3), 340-352.

Appendixes

Appendix 1: Research Questionnaire

Constructs	Measurements
Mastery goals (Midgley et al., 2000)	MG1: I like to participate in fitness sessions where I can learn even if I make a lot of mistakes.
	MG2: One of the important reasons I participate in fitness activities is because I love learning new things.
	MG3: I enjoy my fitness sessions the most when they really push me.
	MG4: One of the important reasons I participate in fitness sessions is because I want to improve my skills.
	MG5: One of the important reasons I participate in fitness sessions is because I enjoy it.
Performance-approach goals (Midgley et al., 2000)	PA1: I would feel confident and happy if I was the only one who could complete a difficult exercise in the fitness club.
	PA2: I want to improve my training performance better than other members of the club.
	PA3: I will feel successful if I can surpass most of the other members of the fitness club in skill and physical performance.
	PA4: I wanted to prove to myself and others that I was capable of performing the exercises better than the other members of the fitness club.
	PA5: Expressing myself through surpassing other members of the fitness club is important to me.
Fitness Club Mastery Goal Structure (Midgley et al., 2000)	FC1: In a fitness club, trying is very important.
	FC2: In fitness clubs, improvement is really important.
	FC3: In a fitness club, learning new exercise ideas and techniques is important.
	FC4: In a fitness club, understanding the exercises is an important goal.
Customer Engagement (Hollebeek et al., 2014)	CE1: This club comes to mind when I consider using sports services.
	CE 2: This club frequently crosses my mind while using its sports services.
	CE 3: Using club's sports services stimulates my interest to learn more about this club.
	CE 4: I have positive feelings when using this club's sports services.
	CE5: Using this club's sports services brings me joy.
	CE6: I feel satisfied when using this club's sports services.
	CE7: I am proud to be a user of this club's sports services.
	CE8: I allocate more time to using this club's sports services than others.
	CE9: This club's sports services are my usual choice.
	CE10: This club is among my top choices for sports services.
Value co-creation in Co-production (Ranjan & Read, 2016)	CP1: Fitness Club is willing to listen to my opinions and suggestions regarding existing services or developing new services.
	CP2: I will be willing to spend time and effort to share my opinions and suggestions with the Fitness club to help improve services and processes.
	CP3: The services at the Fitness club are implemented according to my suggestions.
	CP4: Fitness Club values my role in how the service is deployed.
	CP5: Fitness Club allows full interaction with consumers in its services (service development, marketing, other customer support, etc....)
	CP6: To gain maximum benefit from the service, I must take an active role in my interaction (I must apply skills, knowledge, time, etc...)
Co-creation in value-in-use (Ranjan & Read, 2016)	VIU1: Using the service was a memorable experience for me.
	VIU2: Depending on the nature of my own participation, my experience in the services may differ from that of other customers.
	VIU3: The benefit, value, or pleasure from a service depends on the consumer and the conditions of use.
	VIU4: Fitness Club strives to serve the individual needs of each customer.
	VIU5: Fitness Club provide a good overall experience, beyond functional benefits.
	VIU6: The club's support is necessary for customers to fully enjoy the service
	VIU7: I feel a relationship or connection with the Fitness Club