

**THE EFFECTS OF SOCIAL CAPITAL AND SOCIAL NETWORKS ON
ENTREPRENEURSHIP- AN EXAMINATION OF EDUCATIONAL EXPENDITURES OF
ENTREPRENEURSHIP CLUBS BY THE STRUCTURAL EQUATION MODEL**

**SOSYAL SERMAYE VE SOSYAL AĞLARIN GİRİŞİMCİLİK ÜZERİNE ETKİLERİ-
GİRİŞİMCİLİK KULÜPLERİNİN EĞİTİM HARCAMALARININ YAPISAL EŞİTLİK
MODELİ İLE İNCELENMESİ**

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ÖZET

Girişimciler, sosyal sermayenin etkili yönetimine, sosyal ağlarla dayanışma mekanizmalarına ve kaynak çeşitliliğine ihtiyaç duyarlar. Sosyal sermaye, yatırımcı ilişkilerinden pazarlama karmasına kadar girişimcilik ekosistemini ilgilendiren tüm çeşitli sosyal boyutları kapsar. Farklı sosyal gruplarla etkileşim kurmak, girişimcilerin hem yenilikçi iş fikirleri geliştirmelerine hem de gerekli yatırım desteğini elde etmelerine olanak tanır. Bu bağlamda, sosyal sermayeyi güçlendirmek girişimciler için hayati öneme sahiptir. Sosyal sermayenin unsurları olan sosyal ağlar, girişimcilere finansal faydalar elde etme, girişimcilik eğitimlerinden yararlanma, danışmanlık desteği alma ve yatırımcılarla bağlantı kurma gibi birçok fırsat sunar. Öte yandan, girişimcilerin sosyal ağları arasında yer alan girişimcilik kulüpleri, girişimcilerin yalnızca finansal kaynaklara erişimini kolaylaştırmakla kalmaz. Bu kulüpler, finansal fırsatların yanı sıra, girişimcilere iş yönetimi ve strateji geliştirme süreçlerinde kendilerini sürekli yenileyebilecekleri eğitim, danışmanlık vb. fırsatlar da sunar.

Bu bağlamda, sosyal sermayeyi güçlendiren ve sosyal ağlardan girişimcilik kulüplerinin faaliyet yönetimiyle en yakından ilişkili olan finansal harcamaların doğru yönetilmesi kritik öneme sahiptir. Ekonomik kalkınma için harcama kalemlerinin asgari düzeyde olması ve bütçenin hem üye hem de üye olmayan potansiyel girişimcileri hem eğitim hem de farklı faaliyetlerle en verimli şekilde destekleyecek şekilde kullanılması esastır. Çalışmada girişimcilik kulüplerinin finansal yönetimine dikkat çekilmesi ve bu çalışma ile gelecekteki çalışmalara rehberlik edilmesi amaçlanmıştır. Girişimcilik kulüplerinin eğitime yaptıkları harcamalar önemlidir çünkü bu harcamalar içerisinde en büyük paya sahip olan faktörlerin payı azaltıldığında, bu girişimcilik eğitimleri daha fazla üyeye ve hatta üye olmayanlara açılabilir ve daha uygun fiyata veya ücretsiz olarak sunulurken daha fazla kişinin faydalanması sağlanabilir. Bu, girişimcilik ekosisteminin gelişmesini ve henüz gün yüzüne çıkmamış önemli girişimlerin hayata geçirilmesini sağlayacaktır. Çalışmadan elde edilen bulgular, girişimcilik ekosistemini ve girişimcileri destekleyen bu ve benzeri çıktıların elde edilmesini amaçlamaktadır.

Bu çalışmada planlanan kavramsal çerçevede, girişimcilik eğitimi harcamaları ile girişimcilik kulüplerinin geliri ve girişimcilik kulüplerinin büyüklüğü olmak üzere iki bağımsız değişken arasında pozitif bir ilişki olduğu öngörülmektedir. Bunun yanında girişimcilik kulüplerinin geliri ile finansal gelir ve abonelik geliri faktörleri arasında da pozitif bir ilişki vardır. Benzer şekilde, girişimcilik kulüplerinin büyüklüğü ile üye sayısı ve ofis sayısı arasında da pozitif bir ilişki vardır. Tüm bu varsayımlara dayanarak, bu çalışmanın araştırma sorusu "Girişimcilik kulüplerinin geliri ve girişimcilik kulüplerinin büyüklüğü girişimcilik eğitimi harcamalarını nasıl etkiler?" olarak belirlenmiştir. Çalışmada kurulan hipotezlerin hepsi bir tanesi hariç kabul edilmiştir (üye sayısı girişimcilik kulüplerinin büyüklüğünü etkiler).

Anahtar Sözcükler: Sosyal Sermaye, Sosyal Ağ, Girişimcilik Kulüpleri, Girişimcilik Eğitimi, Girişimcilik.

ABSTRACT

Entrepreneurs require effective management of social capital, solidarity mechanisms with social networks, and resource diversity. Social capital covers all the various social dimensions that concern the entrepreneurial ecosystem, from investor relations to the marketing mix. Interacting with different social groups allows entrepreneurs to both develop innovative business ideas and obtain the necessary investment support. In this context, strengthening social capital is crucial for entrepreneurs. Social networks, which are elements of social capital, offer many opportunities for entrepreneurs, such as gaining financial benefits, benefiting from entrepreneurship training, receiving consultancy support, and establishing connections with investors. On the other hand, entrepreneurship clubs, which are among the social networks of entrepreneurs, do not only facilitate entrepreneurs in accessing financial resources. In addition to financial opportunities, these clubs also offer entrepreneurs training, consultancy, etc. opportunities where they can constantly renew themselves in business management and strategy development processes.

In this context, the correct management of financial expenditures that strengthen social capital and are most closely related to the activity management of entrepreneurship clubs from social networks is of critical importance. It is essential for economic development that expenditure items are at a minimum level and that the budget is used to support both members and non-member potential entrepreneurs in the most efficient way with both education and different activities. In the study, it was aimed to draw attention to the financial management of entrepreneurship clubs and to guide future studies with this study. The expenditures made by entrepreneurship clubs on education are important because when the share of the factors that have the largest share in these expenses is reduced, these entrepreneurship trainings can be opened to more members and perhaps even non-members, and offered at a more affordable price or free of charge, allowing more people to benefit. This will result in the development of the entrepreneurship ecosystem and the implementation of important initiatives that have not yet come to light. The findings obtained from the study aim to achieve these and similar outputs that support the entrepreneurship ecosystem and entrepreneurs.

In the conceptual framework planned in this study, it is predicted that there is a positive relationship between entrepreneurship education expenditures and two independent variables income of entrepreneurship clubs and size of entrepreneurship clubs. Besides that there is also positive relationship between income of entrepreneurship clubs and financial income and subscription income factors. Similarly, there is a positive relationship between size of entrepreneurship clubs and number of members and number of offices both. Based on all these assumptions, the research question of this study is determined as "How do income of entrepreneurship clubs and size of entrepreneurship clubs affect entrepreneurship education expenditures?" All of the hypotheses established in the study were accepted except one (the number of member affects the the size of entrepreneurship clubs).

Key Words: Social Capital, Social Network, Entrepreneurship Clubs, Entrepreneurship Education, Entrepreneurship.

INTRODUCTION

Social capital is of vital importance in entrepreneurial activities. Entrepreneurial activities in economies increase the innovation capabilities of individuals and contribute significantly to sustainable development. Many entrepreneurs encounter and struggle with many difficulties and uncertainties during their entrepreneurial journey. There is a significant difference between entrepreneurs managing these difficulties by themselves and by receiving support from their social capital and social networks. While entrepreneurs with strong social capital can make very fast progress in a very short time, entrepreneurs with weak social capital and limited access to social networks often give up halfway through (Lindvert, Patel and Wincent, 2017). Because with social capital, it is easier for entrepreneurs to struggle with difficulties and uncertainties.

Research in the field of entrepreneurship argues that technological developments and the global competitive environment directly affect entrepreneurs' chances of success. In entrepreneurship, social environment, social capital and relational social networks established in social environments are very important for entrepreneurs in terms of both following technology and gaining competitive advantage in a competitive market. Social networks that strengthen social capital such as entrepreneurship clubs are important elements that facilitate access to information, resources and support, and strengthen entrepreneurs' innovation and sustainability. Today, in addition to entrepreneurs' personal competencies and entrepreneurial skills, the socioeconomic resources they acquire through social networks have become the basic elements that determine their success.

In this context, this research will first detail the effects of social networks on group boundaries and identities, then examine the structures that provide the flow of information and resources, and focus on elements such as diversity and solidarity within the network of entrepreneurs. The social capital that entrepreneurs acquire through social networks and its effect on entrepreneurial success will be discussed in the light of various studies, and the factors affecting the expenditures of entrepreneurship trainings planned by entrepreneurship clubs from entrepreneurs' social networks will be tested with the hypotheses determined in the light of the conceptual framework created, and the findings will be evaluated.

LITERATURE REVIEW

Social Networks, Group Boundaries and Group Identity

Social networks are important social structures that directly shape individuals' identities and sense of belonging. Social networks play a decisive role in entrepreneurs' behaviors, especially through group boundaries, social norms and communication dynamics. On the one hand, social networks provide support by improving entrepreneurs' business practices, while on the other hand, they offer them direct competitive advantages (Burt and Burzynska, 2017). Therefore, it can be said that social networks are an important factor that directly affects cooperation and competition dynamics in entrepreneurship.

Social networks vary according to the identities of individuals and the boundaries of groups, the connections individuals have and the nature of the communities they belong to (Shu, Wang, Tang, Zafarani and Liu, 2017). Identity is a concept that changes according to both the individual's own perception and the perception of those around them (Woodward, 2018). In the process of identity formation, social networks play a decisive role today.

On the other hand, the boundaries of the social groups in which individuals are located also directly affect entrepreneurs' access to information and resources. An entrepreneur can access different resources than other entrepreneurs depending on his or her own social environment (Spigel and Harrison, 2018). Again, entrepreneurs can make new collaborations depending on their own social groups and position themselves better than their competitors in the sector. Therefore, it is seen from this example that social networks and social groups contribute to the process of creating and evaluating opportunities for entrepreneurs.

Social networks offer not only individual but also entrepreneurial benefits. Social networks shape the roles and interactions of individuals in a wide range from entrepreneurs to academics. The connections provided by social networks also develop the innovative perspectives of entrepreneurs. While giving life to their ideas, entrepreneurs should analyze market conditions well and follow the latest technological developments closely and adapt these technologies to their own processes in the most efficient way for the benefit of their enterprises (Rossano-Rivero and Wakkee, 2019). Social networks increase not only individual interactions but also the interactions of many economic, technological and social developments on a global scale. Social networks have a positive effect on entrepreneurship due to the contributions they provide to access to up-to-date information.

The limitations between social groups directly affect the opportunities of entrepreneurs to access information and resources. This situation closely affects the possibilities of developing and doing business in entrepreneurship. In fact, social networks have a critical effect on the processes of doing business and brand development. For example, when someone wants to start a sustainable fashion venture and is not initially part of a large fashion group, they can gain a certain identity by presenting themselves as a sustainable fashion advocate on social media and business networks. In this way, their venture can quickly become a strong sustainability brand that is invited to major fashion events.

DISSEMINATION OF INFORMATION AND RESOURCES IN SOCIAL NETWORKS, ACCESSIBILITY AND CONNECTIVITY

Another way to gain competitive advantage in the entrepreneurial ecosystem is to effectively disseminate information through social networks. In this context, connectivity allows entrepreneurs to increase the variety of resources they can access, create strategic partnerships and quickly seize opportunities in the business world with a wider social environment. Granovetter's theory of weak ties has an important place in this process (Granovetter, 2023). While individuals reach new information

and innovative solutions when they interact with different social groups, strong ties contribute to the establishment of long-term reliable business partnerships and create a stable growth environment.

Social network is a critical element that allows entrepreneurs to access information, expand their resources and improve their business processes. In addition, the acceleration of the flow of information encourages innovation and facilitates the creation of new business opportunities (Sutrisno, Kuraesin, Siminto, Irawansyah and Ausat, 2023). This has been one of the determining factors in the growth strategies of companies such as Airbnb, Tesla and OpenAI. However, it is not enough for entrepreneurs to only access the right information; access to financial resources is also of great importance. Social connections established with investors facilitate the implementation of business ideas and pave the way for sustainable growth. Participation in groups and communities affects growth (Schoenmaker, 2022). As a result, effective use of social networks is a powerful tool that supports entrepreneurs not only in accessing information, but also in gaining a permanent place in the business world and gaining strategic advantage.

For example, it is known that Elon Musk quickly learned and developed battery technology thanks to his connections in technology networks when he founded Tesla. Elon Musk learned about new energy storage solutions through interactions on social networks and gained a competitive advantage by integrating this technology into his company.

DIVERSITY, SOLIDARITY AND SOCIAL ROLES IN ENTREPRENEURS' SOCIAL NETWORKS

The combination of social media, teamwork and social roles greatly influences entrepreneurs' success in business life. Strong social ties prolong the long-term duration of sustainable innovations, while weak social ties facilitate the exchange of knowledge across sectors and disciplines, increasing the diversity and applicability of these innovations (Wehn and Montalvo, 2018). As a result, social networks accelerate the emergence of sustainable business models and the growth of their ecosystems (Neumeyer and Santos, 2018). Thus, social networks become the basis of sustainable development and portable innovation. Innovations are supported by social networks. Long-term freedom can provide great benefits in terms of economy and efficiency. Social networks play an important role in the development and dissemination of sustainable innovations (Kolleck, 2019). By merging units and institutions, integrated work can be shared, businesses can be combined and permanent solutions can be created. Such a comprehensive sustainable innovation strategy not only creates economically and socially innovative solutions, but also promotes knowledge sharing and collaborative learning through social networks (Chen, Fu, Wang, Tsai and Su, 2018; Çelik and Divanoğlu, 2023). In this way, the business models of entrepreneurs focused on ecological and social responsibility are supported.

Strong social ties increase the longevity of sustainable innovations, while weak social ties facilitate knowledge sharing across sectors and disciplines, thus increasing the diversity and applicability of these innovations (Hernández-Soto, Gutiérrez-Ortega, Rubia-Avi and Fàbregues, 2024). Social networks accelerate the spread of sustainable business models and increase the growth of their ecosystems. As a result, social networks form the basis of sustainable development and innovations. Long-term freedom provides significant advantages in terms of both economic and efficiency opportunities (Miller, Kim and Roberts, 2022).

Social networks are maintained as a center for the development and dissemination of sustainable innovations; thanks to the integrated integrations between different units and institutions, it is possible to share knowledge in an integrated manner, bring together tasks and improve permanent solutions. This comprehensive sustainable innovation strategy provides comprehensive solutions in economic and social terms, while paying attention to the exchange of knowledge and collective learning processes through social networks (Reficco, Gutiérrez, Jaén and Auletta, 2018). This economic

strategy encourages entrepreneurs to develop business models that focus on ecological and social responsibility.

Strong social ties increase the long-term sustainability of sustainable innovations, while weak social ties facilitate knowledge sharing across sectors and disciplines, thus expanding the diversity and applicability of these innovations (Zhou, Govindan and Xie, 2020). As a result, social networks accelerate the development of sustainable business models and contribute to the growth of ecosystems. Thus, social networks constitute the basic building blocks of sustainable development and innovation. Social media, teamwork and communication of social roles constitute one of the fundamental elements that concern the protection of entrepreneurs in the business world (Zhao, Barratt-Pugh, Standen, Redmond and Suseno, 2022).

Entrepreneurs are trying to benefit from opportunities such as having communication opportunities by expanding various networks with experts in different sectors, working on creative concepts, and making their businesses more sustainable (Veleva, 2021). The social environment of a startup determines the progress of decisions to create consistently by still progressing in doing business (Kim, Kim and Jeon, 2018). More specifically in the digital world, the possibility of social media offers entrepreneurs opportunities for new expansions and expansion of businesses on a global scale (Da Fonseca, Kogut and da Rocha, 2023). The work team helps entrepreneurs to manage their businesses sustainably after difficult times, beyond taking a step towards making their business processes more active. Providing strong communication and establishing a strong team has taken entrepreneurs to successfully implement their projects and increase their competitive advantage in the market (Nwabueze and Mileski, 2018).

One of the keys to successful events in the business world is directly related to the social roles that entrepreneurs undertake. Entrepreneurs can reach a wider area of influence in their applications to the roles of leader, mentor or investor; this allows them to increase knowledge sharing and expand their business networks (Aithal and Aithal, 2023). For example, when an entrepreneur works as an investor, he can invest in rich projects in the sector and have the chance to pave the way for future successful ventures. Similarly, assuming the responsibility of leadership helps the entrepreneur to direct his team more effectively, develop the vision and motivate his employees (London, 2018). Entrepreneurs can support them to adapt to the new business environment more quickly by sharing their own experiences as mentors (Nate, Grecu, Stavytskyy and Kharlamova, 2022). These social activities create one of the basic independence of entrepreneurship and are important factors that shape interactions in the business world. Entrepreneurs use their networks not only for the creation of new ideas, but also for collaborating on projects, opening access to resources and improving firm performance (Jiang, Liu, Fey and Jiang, 2018).

Accepting diversity, good teamwork and appropriate use of social roles significantly help entrepreneurs to run their businesses more efficiently and achieve long-term success. In addition, entrepreneurs can respond faster to changes in the sector through social networks, better understand the needs of customers by communicating well with them and gain strategic advantages in the competitive conditions in the market. As a result, social media and social distribution have become one of the foundations that provide competitive advantage in entrepreneurial businesses (Butler, Garg and Stephens, 2020).

In today's world where digitalization and globalization are accelerating, it is extremely important for entrepreneurs to use their social networks effectively in order to achieve sustainable success in the business world (Olsson and Bernhard, 2021). Social media platforms not only offer entrepreneurs communication opportunities together, but also provide mass growth by reaching larger audiences (Morris and James, 2017). Effective organization of teamwork and social role management helps entrepreneurs who contribute to their success for many years by optimizing their business processes. The appropriate and efficient implementation of social networks is of vital importance that can help individuals realize developments in entrepreneurship that have gained a permanent place.

For instance, when a technology entrepreneur, desires to develop an artificial intelligence-based application, if the entrepreneur's network includes investors, software developers, academics, and marketing experts, due to this diversity, the entrepreneur can access both technical support and financial resources and manage to make a successful application in a very short time.

SOCIAL NETWORKS, SOCIAL RESOURCES AND SOCIAL CAPITAL

Social capital is defined as the economic and social gains that individuals and organizations achieve through their social networks. In addition, Coleman's social capital theory reveals how network relationships involving individuals and organizations develop on the basis of information sharing and mutual trust (Engbers, Thompson and Slaper, 2017). This study aims to comprehensively analyze the multifaceted effects of social networks on entrepreneurship. The entrepreneurship is evaluated in terms of information sharing, solidarity, capital access, intuitive decision-making processes, and sustainable innovations and their advantages (Ribeiro-Soriano and Kraus, 2018).

The concept of social capital represents the capacity to transform these social resources into the benefit of the individual or organization. Bourdieu and Coleman define social capital as a type of capital that individuals gain by investing in social networks and that can be transformed, such as economic or cultural capital (Williams, 2019). In this context, entrepreneurs increase their social capital as they strengthen their relationships, and this capital plays a critical role in the formation and implementation of new business ideas. Social capital has three dimensions: structural, relational, and cognitive (Portes, 2024). The structural dimension refers to who the individual is connected to; the relational dimension refers to the level of trust and reciprocity in these relationships; and the cognitive dimension refers to the common language and world of meaning. Networks where the entrepreneur is strong in these three dimensions ensure the establishment of more solid and long-term business relationships.

It can be observed that the extent to which the entrepreneur can benefit from these resources is largely related to his or her characteristic features. In particular, individual characteristics such as openness, communication skills, reliability, openness to innovation, proactivity, and propensity to learn affect the entrepreneur's capacity to be included in social networks and strengthen his or her position within these networks (Shu, Ren and Zheng, 2018). These personality traits also shape how individuals in the network perceive the entrepreneur. For example, an entrepreneur who is perceived as trustworthy is more likely to share information and receive support.

On the other hand, some entrepreneurs may be isolated from social networks for various reasons. This situation limits access to information and can lead to loneliness in decision-making processes (Emami, Ashourizadeh and Packard, 2023). Isolation is especially common among women entrepreneurs, immigrants or economically disadvantaged groups (Panda, 2018). Being excluded from social networks or not being able to establish sufficient connections can negatively affect the entrepreneur's capacity for renewal and risk management. Isolation is not only physical but also perceptual. When an individual feels socially excluded, their tendency to turn to potential support also decreases. In order to prevent this situation, accelerator programs, mentoring systems, entrepreneurship camps and policies that increase social capital gain importance. Various studies conducted reveal that especially women entrepreneurs can benefit sufficiently from social networks and that this situation is related to social influences, cultural patterns and structural barriers in accessing networks. In this context, it is seen that social capital is not distributed equally. It is said that this inequality means a loss not only at the individual level but also in terms of the entrepreneurial ecosystem as a whole.

Social Capital is the total value of relationships, norms and a high level of trust. This capital facilitates entrepreneurs' access to information and resources and strengthens collaborative environments. Trust;

provides transparency and loyalty in relationships, encouraging information sharing and risk taking. Norms and rules; provide alignment in line with common goals through shared values and expectations. Network Structure and Connections; a wide and diverse network of relationships provides entrepreneurs with more Social capital, support for entrepreneurs in critical moments, financial resources, strategic partnerships and information flow (Van Burg, Elfring and Cornelissen, 2022). In addition, this capital increases the innovative capacity of the enterprise and facilitates market entry.

Some field studies conducted show that entrepreneurs, especially in the beginning stages, first resort to their family circle, then their circle of friends, and finally their professional networks to access information (Afandi, Kermani and Mammadov, 2017). This situation shows how small business owners are particularly intertwined with local social structures. However, this situation can also turn into a disadvantage in the long run. Because entrepreneurs who constantly obtain information from the same social networks may be far from different sources of information. The concept of connectedness also shows the level of the entrepreneur's social capital. High connectedness facilitates the effective use of social capital (Patel and Wolfe, 2024). The sources that the entrepreneur can access quickly and the information that he can access with confidence are directly proportional to the variety and strength of these connections.

Social capital stands out as a fundamental concept that provides operational advantages to entrepreneurs. Social networks are the main building blocks that provide individuals and organizations with access to information, financial resources and support mechanisms. Social network of relationships is linked to the concept of social capital. For entrepreneurs, social capital carries critical strategic elements such as discovering business opportunities, establishing relationships with investors and expanding market Access (Khan, Li, Safdar and Khan, 2019). In this context, people can establish professional connections, develop collaborations and find ways to implement innovative solutions faster through their social networks.

Entrepreneurs with strong social capital can gain a significant competitive advantage by better analyzing market dynamics when entering new sectors. Social resources include the knowledge, skills, and economic opportunities that individuals gain through their relationships and connections. These resources play a fundamental role in career advancement in the business world, establishing business partnerships, and strengthening the entrepreneurial ecosystem. As a result, social networks create a structure that supports economic growth processes for individuals and businesses and integrates information sharing, trust relationships, and access to resources in the entrepreneurial ecosystem. This system supports the development of sustainable business models by transforming social capital into economic opportunities. To illustrate, Alibaba founder Jack Ma used his social networks to connect with major investors when he first established his startup and quickly managed to transform his startup Alibaba into a major global e-commerce platform.

The diversity, solidarity and distribution of social roles in entrepreneurs' social networks have a direct impact on the success, sustainability and innovation capacity of entrepreneurship. Social networks are not only a collection of personal connections, but also structures that determine the direction of information flow, the level of access to resources and strategic collaborations. The diversity, level of solidarity and the roles assumed by individuals in these networks directly affect the structure and value of the entrepreneur's social capital.

Diversity in social networks includes relationships established with individuals from different social circles. It can be observed that the entrepreneur is not limited to his/her own immediate circle; connecting with people from different sectors, age groups, education levels or cultural backgrounds increases the diversity of information. This situation is very important for innovation and flexibility.

In particular, networks formed by the coming together of different views contribute significantly to the identification of new business opportunities and the development of creative solutions.

Studies show that homogeneous social networks increase trust and harmony, but cause information duplication in the long term, while social networks with diverse structures offer more innovative but difficult to coordinate systems (Root, 2020). In this context, it is important for entrepreneurs to increase their network diversity through “weak ties” in order to access new market information and different business models. Solidarity in social networks plays a critical role, especially in early-stage entrepreneurship processes. Solidarity includes not only financial support but also emotional support, trust, and support in times of crisis. According to social capital theory, such support that individuals obtain from their social relationships increases the sustainability of entrepreneurship, although it does not carry a direct financial value.

Social networks with strong solidarity relationships reinforce the sense of trust and support the entrepreneur's risk-taking behavior (Ilevbare, Ilevbare, Adelowo and Oshorenua, 2022). For example, if an entrepreneur can receive morale and support from his/her family, circle of friends, or local communities during the implementation of his/her business idea; it can be said that this entrepreneur's decision-making processes are more solidly based. In addition, solidarity facilitates the rapid and reliable dissemination of information. In this way, collaborations develop more easily.

Social roles, on the other hand, express the issues and expectations that the entrepreneur undertakes within social networks (Zhao, Barratt-Pugh Standen, Redmond and Suseno, 2022). While the entrepreneur plays the role of a “knowledge disseminator” who provides information, he/she can also take on the role of a “mediator” by establishing connections between others. According to Ronald Burt's “Structural Holes” theory, individuals who bridge different groups use social capital more effectively. In addition, the entrepreneur's status within the network affects how others perceive him/her (Burt, 2018). For example, when an entrepreneur is defined as a “trusted leader” or “innovator” by his/her circle, it is observed that these roles increase his/her level of influence within the network.

Social roles also bring responsibilities. The entrepreneur's roles such as mentoring, sharing information or responding to calls for solidarity support the sustainability of the network. Field studies conducted show that local entrepreneurs generally form their social networks from limited circles, which leads to a lack of diversity and, in some cases, to excessive solidarity and duplication of knowledge. Therefore, university incubators, accelerator programs and professional mentoring systems provide critical support in terms of diversity in social networks and acquiring new roles.

As a result, the diversity, solidarity and roles of the entrepreneur's social networks determine not only individual success but also the sustainability and development of the business idea. A balanced combination of these three headings means both increasing the entrepreneur's social capital and contributing to a more robust entrepreneurial ecosystem.

Social networks, social resources and social capital, which are intertwined concepts, complement each other in the entrepreneur's journey to success. Resources, trust environments and norms accessed through various relationships within networks add strength to the entrepreneur's activities. Strong social networks facilitate the entrepreneur's access to different social resources. If these networks contain high levels of trust and norms, social capital will be high. High social capital positively affects the entrepreneur's decision-making processes, innovation and the sustainability of the enterprise. The entrepreneur's characteristic features play a decisive role in the active participation in these networks and the development of relationships. Entrepreneurship is not only shaped by the emergence of new ideas or projects; it is also shaped by the dynamics between the entrepreneur's personal characteristics, the social networks he establishes and the resources contained in these networks and the abstract concepts behind these relationships.

Social networks are the basic platforms that provide access to new opportunities and information flow. Social resources are valuable elements accessed through relationships within these networks. Social capital represents the reputation and cooperation environment provided to initiatives by strengthening relationships with trust and norms. The characteristic features of the entrepreneur are the basic factors that ensure the effective use and development of these structures. Abstraction shapes the entrepreneur's skills in innovation, strategic thinking and producing solutions to complex problems. Managing these elements in harmony increases the entrepreneur's chance of success and contributes to the development of the entrepreneurial ecosystem.

CONCEPTUAL FRAMEWORK AND HYPOTHESES

Today, social capital is considered the most valuable type of capital to achieve rapid success in entrepreneurship. One of the most practical methods that entrepreneurs who aim to quickly gain social reputation in the entrepreneurship ecosystem and increase their market share with awareness and reach maximum profit in a short time can use to strengthen their social capital is to join entrepreneurship clubs. Because entrepreneurship clubs provide their members with the opportunity to both expand their social network and develop their entrepreneurial skills with the trainings they organize.

In this study, a prediction model prepared for the relationship of the variables in the following figure was determined as a structural equation model. Entrepreneurship clubs invest in entrepreneurship trainings by paying a certain amount of money. Expenses for these trainings depend on the size and income of the entrepreneurship clubs. The size of entrepreneurship clubs is determined depending on the number of members and offices they have. On the other hand, the incomes of entrepreneurship clubs are mostly determined by their financial returns and membership fees.

The expenditures made by entrepreneurship clubs on education are important because when the share of the factors that have the largest share in these expenses is reduced, these entrepreneurship trainings can be opened to more members and perhaps even non-members, and offered at a more affordable price or free of charge, allowing more people to benefit. This will result in the development of the entrepreneurship ecosystem and the implementation of important initiatives that have not yet come to light. The findings obtained from the study aim to achieve these and similar outputs that support the entrepreneurship ecosystem and entrepreneurs.

In the conceptual framework planned in this study, it is predicted that there is a positive relationship between entrepreneurship education expenditures and two independent variables income of entrepreneurship clubs and size of entrepreneurship clubs. Besides that there is also positive relationship between income of entrepreneurship clubs and financial income and subscription income factors. Similarly, there is a positive relationship between size of entrepreneurship clubs and number of members and number of offices both.

Based on all these assumptions, the research question of this study is determined as "How do income of entrepreneurship clubs and size of entrepreneurship clubs affect entrepreneurship education expenditures?"

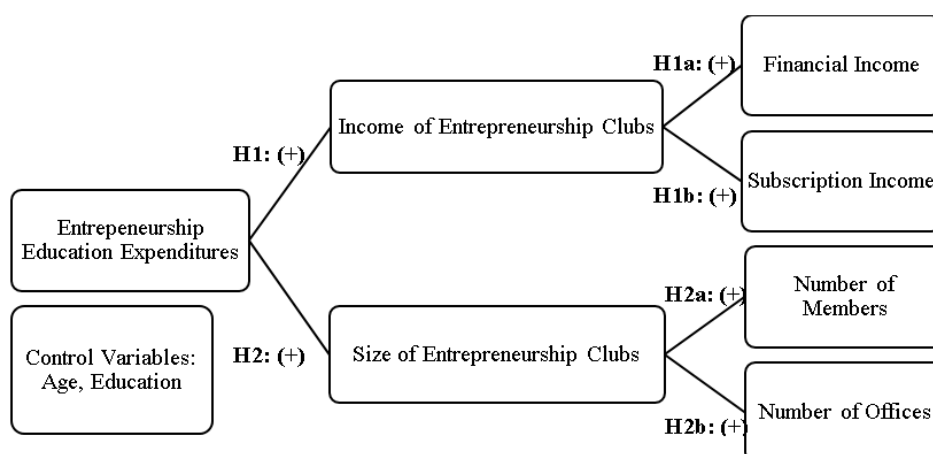


Figure 1: Conceptual Framework

As seen in Figure 1, in this study, two factors argued to have an impact on Entrepreneurship Education Expenditures of Entrepreneurship Clubs: 1) Income of Entrepreneurship Clubs and 2) Size of Entrepreneurship Clubs. These factors, which are expected to improve entrepreneurship education expenditures will be evaluated on a country basis and the results of analysis are expected to make significant contributions to the literature at the end of the study.

Below hypotheses are mentioned compatible with the aim and assumptions of this study:

H1: As income of entrepreneurship clubs increases in a country, entrepreneurship education expenditures increase.

H1a: As financial income increases, income of entrepreneurship clubs increases.

H1b: As subscription income increases, income of entrepreneurship clubs increases.

H2: As size of entrepreneurship clubs increases in a country, entrepreneurship education expenditures increase.

H2a: As number of members increases, size of entrepreneurship clubs increases.

H2b: As number of offices increases, size of entrepreneurship clubs increases.

METHODOLOGY

Dataset and Sample:

The sample of this study consists of data from entrepreneurship clubs of the top 100 countries in the Global Talent Competition ranking, which carry out the most active studies in the world and lead the most effective entrepreneurship projects. A research model shown with a path diagram was created for the data set consisting of data from 100 countries' entrepreneurship clubs.

The data analyzed in SPSS was obtained from the Global Talent Competitiveness Index data in the Future of Jobs Report published by the World Economic Forum. The Global Talent Competitiveness Index is a report that compiles variables related to individuals covering more than 130 countries and this report aims to discover, develop and promote the potential of talented individuals in the market. The top three countries in the talent ranking in the Future of Jobs Report 2023 were Switzerland, Singapore and the USA, respectively. The Global Talent Competitiveness Index allows obtaining data on entrepreneurship training expenditures of entrepreneurship clubs between 2017 and 2023.

The Future of Jobs Report (2023), published annually by the World Economic Forum, argues that clubs, businesses and institutions offer various opportunities to attract talents every day. In fact, these

institutions and businesses develop special promotion and bonus systems for talents, while clubs offer various training and certification opportunities to attract talents. Because today, only countries that can attract talented individuals, develop these people with various trainings and retain them for many years can show a sustainable existence in the global competitive environment.

INSEAD, a French Business School like the World Economic Forum, has understood the importance of talent hunting in the global economy since 2013, and this school has been publishing an index called the Global Talent Competition Index, which analyzes the talent competition of countries for about 12 years. The Global Talent Competition Index reports data that will help countries create regulations and action plans to improve their talent management and evaluates the talent performance of 134 countries.

On the other hand, the independent variables of the study, the size of entrepreneurship clubs and their income, and the data for the years 2017-2023 are obtained from The Global Competitiveness Index (GCI). GCI is an index that provides micro and macro economic data on national competitiveness. GCI was developed by utilizing the World Bank Dataset.

Variables

Dependent Variable “Entrepreneurship Education Expenditures”

The expenditures of entrepreneurship clubs on entrepreneurship training will be evaluated in the study. Therefore, the dependent variable of the study is determined as "entrepreneurship education expenditures". The data related to this variable is obtained from the Global Talent Competition Index.

Independent Variables

Size of Entrepreneurship Clubs

The variables "size of entrepreneurship clubs" and "income of entrepreneurship clubs", which are thought to have an effect on the expenditures of entrepreneurship clubs on entrepreneurship training, are determined as independent variables in the study. The size of entrepreneurship clubs is determined by two criteria: the number of members of the club and the number of offices it owns. Data on independent variables were obtained from The Global Competitiveness Index (GCI). The GCI provides insight into the factors that affect national competitiveness at both macro and micro levels. Income and size are among these factors.

Income of Entrepreneurship Club

Membership dues and financial revenues determine the independent variable “entrepreneurship club revenues”. Data on the independent variable were obtained from The Global Competitiveness Index (GCI).

Analysis Method

The research model of the study was subjected to structural equation model (SEM) analysis via AMOS (Version 22) plugin of IBM SPSS (Version 20) software. The structural equation model that was established measures the extent to which the size (determined by criteria such as number of members etc.) and income of entrepreneurship clubs affect the entrepreneurship education expenditures planned by these clubs.

The variables, latent (latent variables) are included in the table “Variables Subjected to Structural Equation Model Analysis and Their Properties”.

RESULTS AND DISCUSSION

Before starting the Structural Equation Model Analysis, the variables and error margins (residuals) were subjected to One Sample Kolmogorov Smirnov Analysis. As can be seen in the One Sample Kolmogorov Smirnov Analysis results, the details of which will be given later, it is seen that membership fee incomes and financial incomes comply with normal distribution; however, the number of members and offices and education expenditures do not comply with normal distribution.

For this reason, according to the One Sample Kolmogorov Smirnov test results, it is evaluated that the data set partially complies with the normal distribution and is partially suitable for the regressions in the analysis.

After the Sample Kolmogorov Smirnov Analysis, the path diagram was drawn in order to subject the data set to SEM Analysis. In this context, the path diagram was drawn using the SPSS Amos software, as detailed below, and the model was constructed, and the suitability of the model was measured and analyzed with SEM.

The general evaluations as a result of the SEM Analysis, as detailed in the following sections of the report, are summarized as follows.

After applying SEM, the goodness of fit values should be examined. If the goodness of fit values are at an acceptable level, it is appropriate to proceed to the structural equation modeling stage. However, if the goodness of fit values are not at an acceptable level, the values should be ensured to reach an acceptable level. Because when the goodness of fit values are at an acceptable level, the conclusion that the collected data and the proposed structural equation model are compatible is reached. In short, while investigating the compatibility between the data observed in SEM and the model, it is desired that the difference is at an acceptable level. In this way, the model will be suitable and verifiable for the data.

In this context, the results of the P-Value, Chi-Square and GFI, AGFI, RMSEA and NFI, CFI values, which show the suitability of the model to the data and are summarized below, are as a result of the SEM analysis of the structural equation model, most variables are suitable, only the member count variable is not. Based on the findings, it is possible to say that this model is largely compatible with the main mass.

Based on the P- value:

H0: The model is compatible with the data.

H1: The model is not compatible with the data.

$P=0.04$ in the model and since $P<\alpha$, i.e. $P<5\%$, H0 is accepted. In other words, the model is compatible with the data.

In SEM, it is desired to accept the null hypothesis. Therefore, it is desired for the Chi-Square value to be close to 0 and small. The Chi-Square value in the model is 4.885 is greater than 0 and less than 5 and significant. This also accepts the compatibility of the model with the data.

The model's GFI (Goodness of fit index) value was 95.8%; the AGFI (Adjusted Goodness of fit index) value was 92.8%, and it is desired for these values to be above 90%. In this context, it can be said that the model is sufficient for the desired value.

The RMSEA value is expected to be less than 5%. It is expected to be between 5% and 8%. The RMSEA value in the study model is 7.3% for the Default model. This value shows that the model is sufficient for the desired value in terms of fit with the main mass.

In addition, in the goodness of fit tests performed, the NFI and CFI values should be greater than 0.90. NFI was 91.1% and CFI was 92.9% in the model. In this context, the model also has sufficient goodness of fit.

Figure 2: Path Diagram

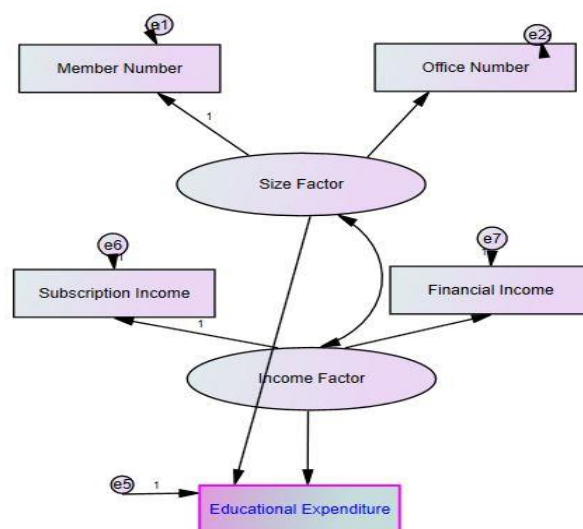


Table 1: Variables and Their Properties Subjected to Structural Equation Model Analysis

Variable	Type	Label	Width	Decimal	Measure	Description	
Top100EfficientClupID	Numeric	Top 100 Efficient Clup ID	3	0	Scale	Entrepreneurship Club Identification Number	
MemberNumber	Numeric	Member Number	7	2	Scale	Number of Club Members	Size Factor
OfficeNumber	Numeric	Office Number	8	2	Scale	Number of Club Offices	
SubscriptionIncome	Numeric	Subscription Income	8	2	Scale	Membership Fee Income	Income Factor
FinancialIncome	Numeric	Financial Income	8	2	Scale	Financial Income	
EducationalExpenditure	Numeric	Educational Expenditure	8	2	Scale	Entrepreneurship Education Expenditures	
IncomeFactor	Numeric	Income Factor	11	5	Scale	Income Factor	
SizeFactor	Numeric	Size Factor	11	5	Scale	Club Size Factor	

Table 2: One-Sample Kolmogorov-Smirnov Test
One-Sample Kolmogorov-Smirnov Test

	Member Number	Office Number	Subscription Income	Financial Income	Educational Expenditure
N	100	100	100	100	100
Mean	1,2980	16,1855	21,9525	1,4140	2342,6200
Std. Deviation	,19847	2,35081	5,27614	,26054	1136,76390
Absolute	,296	,231	,081	,109	,265
Positive	,296	,231	,081	,109	,265
Negative	-,159	-,111	-,077	-,071	-,129
Kolmogorov-Smirnov Z	2,960	2,306	,812	1,091	2,645
Asymp. Sig. (2-tailed)	,000	,120	,525	,185	,170

a. Test distribution is Normal.

b. Calculated from data.

H0: The main mass follows a normal distribution.

H1: The main mass does not follow a normal distribution.

In order to determine whether the data conforms to a normal distribution, the One Sample Kolmogorov-Smirnov test was performed. As a result of the One Sample Kolmogorov-Smirnov test, the closer the significance result is to 1, the more the variable conforms to a normal distribution, and if the significance is $< \alpha$, H0 is rejected, and if the significance is $> \alpha$, H0 is accepted.

When the One Sample Kolmogorov-Smirnov test results of the variables are examined, since the variables circled in blue have significance $> \alpha$ (5%), H0 is accepted. As a result, it is seen that membership income, financial income, number of offices, entrepreneurship training expenses conform to a normal distribution; however, the number of members does not conform to a normal distribution.

For this reason, according to the One Sample Kolmogorov Smirnov test results, it is evaluated that the data set conforms to a normal distribution to a large extent and is largely suitable for the regressions in the analysis.

Analysis Summary

Date and Time

Date: 19 May 2025 Tuesday

Time: 20:54:00

Title

Sem (Duygu): 19 May 2025 Tuesday 20:54

Notes for Group (Group number 1)

The model is recursive.

Sample size = 100

Notes for Group (Group number 1)

The model is recursive.

Sample size = 100

Variable Summary (Group number 1)

Your model contains the following variables (Group number 1)

Observed, endogenous variables

MemberNumber

EducationalExpenditure

OfficeNumber

SubscriptionIncome

FinancialIncome

Unobserved, exogenous variables

e1

e5

SizeFactor

IncomeFactor

e6

e7

e2

Variable counts (Group number 1)

Number of variables in your model: 12

Number of observed variables: 5

Number of unobserved variables: 7

Number of exogenous variables: 7

Number of endogenous variables: 5

Table 3: Parameter Summary (Group number 1)

	Weights	Covariances	Variances	Means	Intercepts	Total
Fixed	7	0	0	0	0	7
Labeled	0	0	0	0	0	0
Unlabeled	4	1	7	0	0	12
Total	11	1	7	0	0	19

Models

Default model (Default model)

Notes for Model (Default model)

Computation of degrees of freedom (Default model)

Number of distinct sample moments: 15

Number of distinct parameters to be estimated: 12

Degrees of freedom (15 - 12): 3

Result (Default model)

Minimum was achieved

Chi-square = 4.885

Degrees of freedom = 3

Chi-square: Tests whether the original variable matrix is different from the default matrix. This test looks at the sign and significance level of the regression coefficients and provides information about the individual parts of the model. At the same time, the accuracy of the entire model can be measured

with this test. The fit between the data and the model is determined by chi-square. The closer the chi-square is to 0, the more fit there is.

The degree of freedom is an important value in the Chi-square Index. In cases where the degree of freedom is large, chi-square gives significant results, while in cases where it is small, chi-square does not give significant results. The degree of freedom makes chi-square independent of sample size. The value obtained by dividing chi-square by the degree of freedom is expected to be less than 3. Some researchers consider values less than 3 as compatible and values between 3 and 5 as acceptable compatibility. In the model of the study, the chi-square value was found to be 4.885. The degrees of freedom is 3. In this context, it can be said that the model is compatible with the data.

Df (Degrees of Freedom): Degrees of Freedom is the degree of freedom of the model. The larger the Df, the better the prediction and the less complex the model. The number of freely determined relationships (parameters, arrows) is understood with the degrees of freedom (df) value.

As parameters are added to the model, the degree of freedom decreases, but the model becomes stronger in this way. As can be seen from the CMIN table in the Model Summary section, there are 12 parameters (arrows) in the model and a maximum of 15 arrows (saturated - most complex - model) can be added to this model. Probability level = .012. In this case, the most complex model is the model with the best estimate (saturated). Degrees of freedom is the difference between these two. $DF = 15 - 12 = 3$. 3 is a number close to zero. Therefore, since DF is small, it can be said that the model fits the data quite well.

Estimates (Group number 1 - Default model)

Scalar Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 1 - Default model)

As shown in the path diagram of the model in the study, the regression coefficients are as follows. The explanations of the findings are as follows:

- The Income factor has a negative effect on entrepreneurship education expenditures.
- The Size factor has a positive effect on entrepreneurship education expenditures.

Table 4: Regression Weights

		Estimate	S.E.	C.R.	P	Label
OfficeNumber	<--- SizeFactor	8,372	2,478	3,379	***	par_1
MemberNumber	<--- SizeFactor	1,000				
SubscriptionIncome	<--- IncomeFactor	1,000				
FinancialIncome	<--- IncomeFactor	,0123	,051	1,770	,003	par_2
EducationalExpenditure	<--- IncomeFactor	-24,870	49,787	-,500	,002	par_3
EducationalExpenditure	<--- SizeFactor	1748,454	900,346	1,942	,004	par_4

Table 5: Standardized Regression Weights: (Group number 1 - Default model)

		Estimate
OfficeNumber	<--- SizeFactor	,685
MemberNumber	<--- SizeFactor	,970
SubscriptionIncome	<--- IncomeFactor	,526
FinancialIncome	<--- IncomeFactor	,967

	Estimate
EducationalExpenditure <--- IncomeFactor	-,061
EducationalExpenditure <--- SizeFactor	,296

The covariance is as follows.

Table 6: Covariances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
SizeFactor <--> IncomeFactor	,219	,133	1,648	,0009	par_5

The correlation is as follows.

Table 7: Correlations: (Group number 1 - Default model)

	Estimate
SizeFactor <--> IncomeFactor	,415

Table 8: Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
SizeFactor	,037	,012	3,178	,001	par_6
IncomeFactor	7,612	4,933	1,543	,003	par_7
e1	,002	,010	,229	,007	par_8
e5	1181553,927	172962,976	6,831	***	par_9
e6	19,947	5,007	3,984	***	par_10
e7	,004	,034	,129	,009	par_11
e2	2,901	,821	3,533	***	par_12

Table 9: Squared Multiple Correlations: (Group number 1 - Default model)

	Estimate
FinancialIncome	,134
SubscriptionIncome	,276
OfficeNumber	,470
EducationalExpenditure	,076
MemberNumber	,940

The tables of the matrices named below, which show the covariance and correlation of all variables with other variables and factors (latent variables) and the residual error margins with other variables, could not be included in the report because they are very large in size.

- ✓ Implied (for all variables) Covariances (Group number 1 - Default model),
- ✓ Implied (for all variables) Correlations (Group number 1 - Default model),
- ✓ Implied Covariances (Group number 1 - Default model),
- ✓ Implied Correlations (Group number 1 - Default model),
- ✓ Residual Covariances (Group number 1 - Default model),
- ✓ Residual Covariances (Group number 1 - Default model)
- ✓ Standardized Residual Covariances (Group number 1 - Default model)

Factor Scores are as shown in the table.

Table 10: Factor Score Weights (Group number 1 - Default model)

	Financial Income	Subscription Income	Number of Offices	Number of Members	Education Expenditures
Income Factor	9,913	0,022	0,003	0,416	0,000
Size Factor	0,020	0,000	0,006	0,879	0,000

The total effect of the factors is as shown in the table:

Table 11: Total Effects (Group number 1 - Default model)

	IncomeFactor	SizeFactor
FinancialIncome	,134	,000
SubscriptionIncome	1,000	,000
OfficeNumber	,000	8,372
EducationalExpenditure	-24,870	1748,454
MemberNumber	,000	1,000
	IncomeFactor	SizeFactor
FinancialIncome	,967	,000
SubscriptionIncome	,526	,000
OfficeNumber	,000	,685
EducationalExpenditure	-,061	,296
MemberNumber	,000	,970
	IncomeFactor	SizeFactor
FinancialIncome	,091	,000
SubscriptionIncome	1,000	,000
OfficeNumber	,000	8,372
EducationalExpenditure	-24,870	1748,454
MemberNumber	,000	1,000
	IncomeFactor	SizeFactor
FinancialIncome	,967	,000
SubscriptionIncome	,526	,000
OfficeNumber	,000	,685
EducationalExpenditure	-,061	,296
MemberNumber	,000	,970
	IncomeFactor	SizeFactor
FinancialIncome	,000	,000
SubscriptionIncome	,000	,000
OfficeNumber	,000	,000
EducationalExpenditure	,000	,000
MemberNumber	,000	,000
	IncomeFactor	SizeFactor
FinancialIncome	,000	,000
SubscriptionIncome	,000	,000
OfficeNumber	,000	,000

	IncomeFactor	SizeFactor
EducationalExpenditure	,000	,000
MemberNumber	,000	,000

Modification Indices (Group number 1 - Default model) show the relationships that are not included in the model but may be significant and shows the modification indices values that are used to improve the model. The covariance and regression weights are given in the tables below:

Table 12: Covariances: (Group number 1 - Default model)

	M.I.	Par Change
e2 <--> e6	7,292	2,143

Table 13: Variances: (Group number 1 - Default model)

	M.I.	Par Change
--	------	------------

Table 14: Regression Weights: (Group number 1 - Default model)

	M.I.	Par Change
SubscriptionIncome <--- OfficeNumber	4,238	,400
OfficeNumber <--- SubscriptionIncome	4,212	,069

The current model below is the latest model that has been tested by taking into account the modification indices:

Table 15: Minimization History (Default model)

Iteration	Negative eigenvalues	Condition #	Smallest eigenvalue	Diameter	F	NTries	Ratio
0	e 3		-,173	9999,000	145,227	0	9999,000
1	e 0	26,376		1,269	39,663	20	,830
2	e 1		-,027	,530	18,268	3	,000
3	e 0	52,827		,488	14,482	6	,693
4	e 0	85,196		,368	12,303	1	1,229
5	e 0	169,793		,382	11,373	1	1,201
6	e 0	433,063		,250	11,001	1	1,218
7	e 0	782,699		,215	10,905	1	1,160
8	e 0	1353,558		,095	10,886	1	1,134
9	e 0	1603,019		,039	10,885	1	1,052
10	e 0	1637,579		,003	10,885	1	1,006
11	e 0	1648,142		,000	10,885	1	1,000

Following tables are related with Model Fit Summary Results.

Table 16: CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	12	4,885	3	,002	3,628
Saturated model	15	,000	0		
Independence model	5	121,822	10	,000	12,182

CMIN shows the Chi-Square value of this model.

Chi-square: Tests whether the original variable matrix is different from the default matrix. This test looks at the sign and significance level of the regression coefficients and provides information about the individual parts of the model. At the same time, the accuracy of the entire model can be measured with this test. The fit between the data and the model is determined by chi-square. The closer the chi-square is to 0, the better the fit.

In this model, the chi-square value is 4.885, which is less than 5. Since the chi-square value is between 3 and 5, the model is compatible with the study data. Since the P value is less than 0.005, it is significant.

Df (Degrees of Freedom): Degrees of Freedom is the degree of freedom of the model. The larger the df, the better the prediction and the less complex the model. The number of freely determined parameters can be determined with the df value.

As parameters are added to the model, the degree of freedom decreases. However, the model gets better. As can be seen from the CMIN table in the Model Summary section, there are 12 parameters (arrows) in the model and a maximum of 15 arrows (saturated - the most complex model) can be added to the model. In this case, the most complex model is the model with the best estimate (saturated). DF is the difference between these two. (DF=15-12=3) Therefore, as DF decreases, the model's compatibility with the data increases.

The freedom value of the model is 3. Since the number of available parameters is 12, relationships can be determined in the model with a maximum of 15 arrows in the model within all possibilities. The P-value tests whether the model and the data are compatible.

H0: The model is compatible with the data.

H1: The model is not compatible with the data.

P=0.002 in the model and since $P < 5\%$, H0 is accepted. In other words, it can be said that the model is compatible with the data.

Table 17: RMR, GFI (Goodness of fit index)

Model	RMR	GFI	AGFI	PGFI
Default model	214,420	,958	,928	,192
Saturated model	,000	1,000		
Independence model	307,128	,675	,513	,450

GFI (Goodness of fit index) shows the general amount of covariance between the calculated/observed variables with the assumed model. It can be explained like R square in regression analysis. The difference between them is related to the error variance while R2 (determination coefficient) is related to the observed covariance percentage.

A large sample size can increase the GFI value and prevent accurate results. The GFI value varies between 0 and 1. GFI exceeding 90% is taken as a good model indicator. This means that sufficient covariance has been calculated between the observed variables. Accordingly, the GFI value of the model was 0.958, which is a desired and very good value.

Adjusted Goodness of Fit Index (AGFI) is an index used to eliminate the deficiency in high sample size of the test. Its value varies between 0-1 and must be above 0.90. If it gets a negative value, this indicates that the sample size is very small or the model has an extremely poor fit. If it gets a value greater than 1, this indicates the existence of a fully defined model. It is not correct to use it in low sample size. Accordingly, the AGFI value of the model is 92.8% and this is the desired value since it is above 90%.

Table 18: Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	,911	,702	,934	,765	,929
Saturated model	1,000		1,000		1,000
Independence model	,000	,000	,000	,000	,000

Normed Fit Index (NFI) investigates the fit of the basic or zero-correlation (independent) model of the assumed model. The aim is to determine the amount of fit improved by using the assumed model. In other words, it shows the amount of increase in fit obtained by using the assumed model compared to the zero-correlation (independent) model and takes a value between 0 and 1. The value found should be above 0.90 and the closer it is to 1, the higher the goodness of fit it has. Accordingly, the goodness of fit of the model was 91.1%, which is a desired value.

The Comparative Fit Index (CFI) compares the fit of the current model with the fit of the zero-correlation (independent) model that ignores the correlation and covariance between the latent variables. In other words, it compares the covariance matrix estimated by the model with the covariance matrix of the zero-correlation (independent) model. CFI takes values ranging from 0 to 1, indicating that the goodness of fit increases as it approaches 1, and emphasizing that the model with a higher CFI has a stronger fit. Accordingly, the goodness of fit of the model was 92.9%, which is a desired value.

Table 19: Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	,300	,273	,279
Saturated model	,000	,000	,000
Independence model	1,000	,000	,000

Table 20: NCP

Model	NCP	LO 90	HI 90
Default model	7,885	1,316	21,978
Saturated model	,000	,000	,000
Independence model	111,822	79,916	151,180

Table 21: FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	,110	,080	,013	,222
Saturated model	,000	,000	,000	,000
Independence model	1,231	1,130	,807	1,527

Table 22: RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	,034	,067	,272	,031
Independence model	,043	,284	,391	,000

RMSEA (Root Mean Square Error of Approximation) determines how the model will fit the main mass when its data changes. It determines how much the model differs from the main mass data. In order to say that a model is compatible with the main mass, RMSEA should be <5%.

If RMSEA is between 5% and 8%, the model and the main mass fit can be accepted. If it is above 8%, the model is unacceptable. For a good fit, it should be less than 5% and close to 0. Since RMSEA = 3.4% in the model and this value is less than 5%, it can be said that the desired value is sufficient for the model to fit the main mass.

Table 23: AIC

Model	AIC	BCC	BIC	CAIC
Default model	34,885	36,433	66,147	78,147
Saturated model	30,000	31,935	69,078	84,078
Independence model	131,822	132,467	144,847	149,847

Akaike's Information Criteria (AIC), Bayes Information Criteria (BIC) only give an idea about the general suitability of the model. AIC, BCC, BIC and CAIC cannot give an idea about whether the results are significant or not. These criteria are used only in model comparisons. The model with the lowest value among the compared models is the best model. Therefore, when the AIC and BCC values in this table are examined, it can be said that the best model is the Saturated Model, then the Default Model and finally the Independence Model. On the other hand, when BIC and CAIC are evaluated, it is observed that the best model is the Saturated Model after the Default Model and the model that remains at the end of the ranking is the Independence Model.

Table 24: ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	,352	,286	,495	,368
Saturated model	,303	,303	,303	,323
Independence model	1,332	1,009	1,729	1,338

Expected Cross Validation Index ECVI is another measure that measures the fit of the model with the data. In ECVI, the thing to be tested is compared with the Independence Model and Saturated Model. The independence model shows the situation where all the relationships in the model are limited to zero, that is, all the parameters are fixed to zero. In the "saturated model", the relationships between all the variables in the model are defined. The model ECVI value is compared with the saturated model ECVI value. In this comparison, it is desired that the model value is lower. The comparison of

the models is similar to the previous one. The lowest value represents the best model. Therefore, since the lowest ECVI in this table belongs to the Saturated Model, the best model is the Saturated Model.

HOELTER

Model	HOELTER	HOELTER
	.05	.01
Default model	72	104
Independence model	15	19

The HOELTER criterion, developed by Hoelter (1993), measures the goodness of fit of a model. HOELTER helps determine the sample size required for an acceptable model. Values greater than 200 are the best values, but in this study, a value of 104 is also acceptable.

CONCLUSION

Social capital and social networks play an important role in the development of entrepreneurship. One of the fundamental dynamics affecting the success of entrepreneurs is the capital they have. Capital is diverse and recently, social capital, which contributes the most to the success of entrepreneurship, has come to the fore in the literature. Information sharing, solidarity between individuals and strengthening social capital through social networks are important elements. Social capital has a vital function in taking the first step in the entrepreneurship process and ensuring the continuity of success.

Based on the fact that entrepreneurship today develops not only with financial capital but also with social capital, this study conducted research on entrepreneurship clubs that strengthen the social capital that entrepreneurs have in the entrepreneurship ecosystem. It is known that the number of successful entrepreneurs increases day by day with the entrepreneurship trainings planned on a voluntary basis for the members of entrepreneurship clubs and individuals outside the clubs and that the motivation of potential entrepreneurs increases and they enter various sectors. In this context, the problem statement of the study is to what extent the expenses allocated by entrepreneurship clubs for entrepreneurship trainings depend on the income of entrepreneurship clubs and the size of entrepreneurship clubs.

When entrepreneurship clubs manage their budget allocated for trainings and their incomes correctly and increase their size; they can use this budget more efficiently. In fact, they can transfer the amount they save from the budget to the expenses of various activities in order to include potential entrepreneurs who are not members in the ecosystem on a voluntary basis. In this respect, the study aimed to determine the factors that are thought to affect the amount of expenditures that entrepreneurship clubs allocate for entrepreneurship trainings the most and some suggestions were tried to be presented according to the findings in order to use these expenses more efficiently by reducing them according to their importance.

All of the hypotheses established in the study were accepted except one. The findings related to the number of members factor that only affects the size of entrepreneurship clubs are not statistically significant. It is thought that the reason for this is that all individuals who are members of an entrepreneurship club are included in the dataset without separating them as active and passive. It was concluded that individuals who actively participate in entrepreneurship clubs will also actively participate in trainings, but passive individuals do not participate in almost any activities and will not participate in entrepreneurship trainings, thus increasing their training expenses unnecessarily. This is a result that is consistent with real life. Although the proposition expects that the number of members of the entrepreneurship club directly affects the size of the club, in reality it is more accurate for the number of active members to determine the size of the club.

On the other hand, the hypothesis regarding the number of offices affecting the size of entrepreneurship clubs is positive and significant, similar to what was expected. In other words, as the number of offices increases, the size of the club increases. The proposition regarding the other hypothesis is both positive and significant. In other words, the income of entrepreneurship clubs affects the expenditures of entrepreneurship trainings in direct proportion. As the income of entrepreneurship clubs increases, the budget and expenditures allocated to entrepreneurship trainings also increase. On the other hand, the income of entrepreneurship clubs depends on both the income they obtain from the activities they carry out (financial income) and the membership income. As financial income and membership income increase, the returns of entrepreneurship clubs also increase, and as a result of this increase, the amount allocated by entrepreneurship clubs to entrepreneurship trainings also increases.

All the concepts of group boundaries and identity, information flow, effective management of social capital, solidarity mechanisms and diversity, entrepreneurs' commitment to investor relations express different dimensions of the entrepreneurship ecosystem. Interacting with different social groups allows entrepreneurs to develop innovative business ideas and obtain the necessary investment support. In this context, strengthening social capital, gaining financial benefits, benefiting from entrepreneurship trainings, receiving consultancy support and establishing connections with investors, etc. are the gains that entrepreneurs gain with the help of social networks. Thanks to social networks and the social capital they possess, entrepreneurs not only have access to financial resources, but also can constantly renew themselves in business management and strategy development processes. Therefore, the correct management of financial expenses, which strengthen social capital and are most closely related to the activity management of entrepreneurship clubs from social networks, is of critical importance. It is essential for economic development that the expenditure items are at a minimum level and that the budget is used to support both members and non-member potential entrepreneurs in the most efficient way with both education and different activities. In the study, it was aimed to draw attention to the financial management of entrepreneurship clubs and to guide future studies with this research. For this purpose, it would be appropriate for future studies to investigate the financial management elements of different activities of social network entrepreneurship clubs that strengthen the entrepreneurship ecosystem.

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