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Research Article

Strategies of Growth for Entrepreneurial Ecosystem in Technological Parks: Example of National Technopark

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ABSTRACT: It is clear that important developments will be achieved in growth strategies with information, education, governance and wide-ranging reforms in order to create strong foundations. In the entrepreneurship ecosystem; Technoparks provide a business environment that supports entrepreneurship and contribute to local and global change and development. With the many advantages and supports provided to businesses through technoparks, realization of social goals, competition, quality and added value to the country's economy in many aspects are provided. With this aspect, technoparks play an important role in the growth strategies of the businesses they house. The aim of this study; To determine the growth strategies of all companies operating in the technopark and to measure their differences according to demographic characteristics. For this purpose, data were collected from 48 years ago. The data of the research; It was measured by factor analysis, t-test and analysis of variance (ANOVA) and correlation analysis using SPSS. As a result of the research, it was not determined that there were significant differences between the growth strategies of the participants and their demographic characteristics.

KEYWORDS: Entrepreneurship, Enlightened Ecosystem, Technoparks, Growth Strategies

1. INTRODUCTION

When human history is examined, it is possible to find the first examples of entrepreneurship from hunter-gatherer times to mining age. This traces entrepreneurship back as far as human history. As humans interact with each other, a small amount of commercial mobility has emerged. This small-scale commercial mobility eventually triggered manufacturing, resulting in the emergence of large commercial routes and transformed the outer-closed lifestyle of various groups into a life-form that was headed toward urbanization. Entrepreneurship around the world has been one of the major issues in recent years, both in terms of states and in terms of private sector and industry, as entrepreneurship is one of the key factors driving economic growth. There are strong links between entrepreneurship and economic growth, technological development, innovation, competitiveness, employment, and there are increasingly studies being done to identify and understand the importance of these strong links. Globalization has recognized the importance of integration and strong competition, and the need for new, high-tech products has increased. Development and sustainability in the economic sense has become imperative, to solve high unemployment, to provide economic peace and prosperity. All these processes have made entrepreneurial activities increasingly important in new and strategic development plans.

The process of entrepreneurship brings with it innovation. This is providing economic growth and accelerating development. In this context, many empirical studies have been done concerning the economic growth and employment growth of national or international entrepreneurship and innovation. From these studies, entrepreneurship training, entrepreneurship acceleration programs, and economic activities were undertaken. To ensure sustainability for these activities, a variety of entrepreneurial centers and acceleration programs are being organized by various organizations and organizations to provide entrepreneurial spirit today, provide a useful environment for the needs, and provide support at the point of supply. These centers provide support for initiatives that are in the intellectual phase or have just been established for office and office appliances, workspace, prototyping support, business management and organization, industry and market analysis, competition analysis, market research, law and financing provision. Such centers also support entrepreneurs in the areas of consulting, training, certification, accreditation, information-technology transfer and sharing through the mentors, which are included in their respective expert and expert advisory status. Usually these centers are located inside technoparks, universities and large-scale technology

companies. Among these sites, one of the most important is the technology park, which plays a major role in business growth strategies.

The study primarily focused on entrepreneurship, the entrepreneurial ecosystem, business growth strategies, and conceptual definitions of technoparks, and issues related to growth strategies of businesses in technoparks. This study collected data from a survey of 48 entrepreneurial firms operating in the UluTEK Technological Park of the University of Bursa. The study's data was measured using SPSS with factor analysis, t-test and variance analysis (ANOVA) analysis, and correlation analysis. Differences in technology park entrepreneurs' growth strategies and demographic characteristics have been measured.

3. CONCEPTUAL FRAME

3.1. Ecosystem of Entrepreneurship and Entrepreneurship

Business science is gradually improving. New situations, approaches, and work, along with business concepts, give new meanings and dimensions. In this sense, ongoing development has shown a number of definitions of entrepreneurship, a necessity for the country's economies. Entrepreneurship is a concept derived from French as entrependre. He was first introduced into the literature by the economist J. B. Say. Entrepreneurship is defined as the process by which an individual or group is given the power and opportunity to fulfill their needs, by uniquely innovating to create value and growth, regardless of what resources they have (Minimizing, 2009: 22). Entrepreneurship is to take psychological and social risks economically through an effort to establish value (Demirel, 2003: 9). Again entrepreneurship is the creation and development of any business, regardless of size (Erdogan, 2012: 27). Entrepreneurship is a series of activities for the creation of organizations (Gartner, 1988: 47). Entrepreneurship is the building of new businesses and the enabling of commercial potential and applicability into a product, service, or manufacturing process innovation (Chetinavear, 2002: 10). The French scientist Richard Cantillon described the concept of entrepreneurship as "the one who takes a risk apart from the equity owner." (Scotch, Diligent, Orange, 2019: 2). It is possible to define entrepreneurship by the following definitions:

Activities associated with being entrepreneurial or entrepreneurial represent a set of skills that a person needs to successfully launch and run a small business.
Being an entrepreneur is about having an administrative ability and also about accepting the risk of starting and running a business for innovation and profit.
It's all the productive resources of a for-profit decision maker that decides what economic activity to participate in and how to undertake them.
It refers to people who are willing to risk their time, money, to run, set up, manage a business and shows a willingness to take on the risks involved.
It is the process of creating a business that can uniquely distribute resources and people to develop a new organization and enter new or established markets.
It relates to management skills or the personal initiative used to combine resources in productive ways, and the quality of being entrepreneurial and pro-active is the practice of starting or taking on new jobs.
Entrepreneurship is a process in which individuals and groups pursue opportunities, exploit resources and embark on change to create value through proactive living.

Entrepreneurship and innovation/innovation have become one of the most prominent political topics in Turkey in recent years (Candless, Cunning, and Yavan, 2018: 3). Entrepreneurship is considered a critical factor for economic development (Eliasson and Henderson, 2004: 3). To increase entrepreneurial activity, one has to discover the skills of individuals or groups. There are many factors influencing entrepreneurship, such as education, family, cultural values, resource use, gender, age, economic policies, development programs, or laws.

The entrepreneurial ecosystem refers to all of the entrepreneurial processes that are connected, such as existing entrepreneurial actors, firms, venture capitalists, angel investors, banks, entrepreneurs, enterprises; universities, public sector institutions, financial institutions; institutions such as business birthrate, the number of fast-growing firms that officially and informally merge to connect, mediate and manage performance in the local entrepreneurship environment, levels of blockbuster entrepreneurship, the number of serial entrepreneurial levels, the degree of selling mentality within firms, and levels of entrepreneurial ambition (Mason and Brown, 2014:5). In another definition, the entrepreneurial ecosystem refers to a structure that promotes and finances innovative initiatives through the combination of social, political, cultural, and economic resources

in a region, encouraging establishment of high-risk enterprises or taking risks (Spigel, 2017: 50). The entrepreneurial ecosystem, often offered as a list or scheme, contains a number of players or stakeholders along with the required components and often emphasizes through networks the combination or interaction of factors that produce common cultural values that underpin entrepreneurial activity (Malecki, 2017: 5).

The concept was first used by Moore (1993) as a business ecosystem, meaning business ecosystem, unlike biology or ecology (Moore, 1993), and argued that businesses should not be judged solely by a single industry and should be seen as part of the structure covering different sectors in the business ecosystem (1993: 76). The entrepreneurial ecosystem has a close relationship with economic development and prosperity (Alper, 2020: 7). It is necessary to establish a self-contained system in the entrepreneurial ecosystem in order to ensure economic development and prosperity and to integrate all the components in a systematic manner. One of the most important features of the entrepreneurial enterprise is that there is a culture in the entrepreneurial ecosystem that promotes risk-taking. It encourages risk-taking and offers innovative initiatives and steps towards social and economic goals. In the entrepreneurial ecosystem, there is not just the temptation for risk, but also investors, mentors, policies that promote entrepreneurship, regional components or economic components that are involved. Entrepreneurship is underpinned by regional and national economic development, which needs entrepreneurial support to achieve these goals. There are many factors for entrepreneurs to be successful. One of the most important criteria for success depends on the size of the entrepreneurial ecosystem in which they depend, the volume of multifaceted material, and the richness of the elements. At the same time, entrepreneurs need to interact tightly with organizations, organizations, organizations, individuals, and centers in the ecosystem such as individuals (Entrepreneurs, venture programs coordinated by research universities and universities, business or entrepreneurship programs organized by research universities, government-funded programs, commerce rooms, and accelerator programs by technoparks affiliated with universities, incubation centers and private organizations. The entrepreneurial ecosystem is characterized as a social and economic environment, affecting entrepreneurship in a regional or national sense. The entrepreneurial ecosystem is a set of actors and factors that act in unison and that support productive entrepreneurship. There are elements that make up the ecosystem of entrepreneurship, and it turns out that these elements have a supportive, restorative, accelerating, encouraging effect for entrepreneurial activity in every region and country. These elements, classified in several different categories, are shown in Table 1 (WEF, 2013: 7, Mason, and Brown, 2014: 24, www.teknogirisimokulu.com/).

Table 1. Entrepreneurial elements and sub-components of ecosystem

Access to entrepreneurial financing and financing	Nearby (friend, family) Angel Investors, Private Equity, Venture Capital, Credit and capital markets
Government policies, trade, and legal infrastructure	Regulations in the social security sphere, the justice and tax system, incentives, barriers to bureaucracy, executive and bankruptcy, and legal regulations for product markets, investment framework and shape
Public entrepreneurship programs, entrepreneurial education and training	Universities or other public institutions-led programs, Program time, intensity, purpose, outputs, education, training, experience, entrepreneurship infrastructure, consulting services, professional support, mentors, incubation centers, and accelerators, staff competency (in-service training, hybrid certification programs)
Accessible Markets	Large and medium enterprises in the domestic and international market, government firms, quality markets, public tenders
Research development, technology and information transfer	University and industry collaboration, intercompany interaction, information and technology sharing, and support
Physical infrastructure	Basic infrastructure systems, Internet, environmental regulations
Cultural and social norms	Labor mobility, local or national culture, perceptions of risk and entrepreneurship, willingness to own a business, social capital and trust, Success stories, positive entrepreneurship chart, risk and failure-defined tolerance level, success factors

Source: (WEF, 2013: 7, Mason and Brown, 2014: 24, www.teknogirisimokulu.com/)

3.2. Technoparks

There is no uniformly accepted definition for technoparks. There are more than one term used similarly to research park, science park, technology park, business park, innovation center, technopolis (Löfsten and Lindelöf, 2002: 861). Technoparks are business development ecosystems and they share environments (www.tgbd.org.tr/1986) in collaboration between universities, research institutions, and industrial organizations for the purposes of research and development, innovation, technology and information transfer, interaction, economic-social integration, and organized movement. As of 1986, the concept of technopark came to

prominence and began to take part in development plans. As a result of the increased interest and importance in technology and science, various steps were taken as part of the technopark in Turkey in the 90s (Capkin, 2019: 49). The "Technology Development Zones Act" came into force on 6 July 2001 with the publication of Law 4961 in the Official Gazette. The first technopark installation in our country was performed by ODI (Blend and Öönen, 1999). In our country, under the Technology Development Zones Act 4691, the state-of-the-art organizations and operations were regulated, and technoparks with great significance in the entrepreneurial ecosystem were established with the aim of developing value-added technology products and increasing exports, paving the way for technological development and entrepreneurship. The activities of entrepreneurs and companies doing business in these areas are supported in commercialization and in many areas. There are also many tax breaks, exceptions, and export incentives. These support are (Act 4691, www.turmob.org.tr):

Tax support on wages: Exempt any tax from any costs associated with this duty of R&D staff.
Exception of customs duty and fees: R&D, goods imported for use in research related to innovation and design are exempt from customs duty and its regulated papers, the transactions are stamped tax and fees.
Exceptions in income and corporate taxes: Exemption of income and corporate tax on profits from software and R&D activities. (until 12/31/2023).
SGK premium exemption: For companies, R&D, design or support staff, SGK does not pay 50% of the employer premium share.
VAT exception: Delivery and servicing of systems management, data management operations, business applications, internet, mobile and military command, and control application software are assessed as a VAT exception.

There are many benefits that technoparks bring to entrepreneurs, to the region and to the university. Locally, it promotes the emergence of regional dynamics and the strengthening of communication among local actors, thus increasing productivity and helping to promote strong competition. Reducing unemployment, increasing employment opportunities, and contributing to nationwide, even global, gains beginning locally (Polat, 2003). From the point of view of entrepreneurs, it teaches project-based work and reinforces that aspect of entrepreneurs. The university and industry employ cooperation to ensure movement and benefit from government subsidies. It increases training and skilled labor capacity, and paves the way for interaction with other entrepreneurs or entrepreneurs, and provides an environment for that. By building joint projects, it speeds up the development of firms or entrepreneurs and facilitates quality product and market discovery (Bella Vista and Sanz, 2009). From the university's point of view, the theoretical focus allows for many studies to be carried out on the ground. It provides an outward shift in information and technology, particularly in the context of an introvert structure, and contributes to new strategic studies by acting in partnership with the private sector or industry. Universities offer entrepreneurs a broad range of benefits in knowledge, accumulation, IT, management and theoretical aspects of the entrepreneurial ecosystem through technoparks, and respond to the needs of entrepreneurs in all senses, with laboratories, equipment, equipment, and so on. As a result, an assessment is made, the establishment of technoparks and the development strategies of the technoparks to revitalize the country's industry by providing joint studies on this axis to meet the need for domestic technology, to conduct effective education activities in universities, to address the existing problems in the industry, to utilize the accumulation of academic knowledge within the university, and to promote the sharing of this information in needed areas, to promote comparable potential product production, to improve employment and to encourage entrepreneurship in innovative environments, and to take an active part in the growth strategies of the businesses involved in technoparks. In this context, Ulutek Teknopark was founded under the leadership of Uludag University. Here is a short dog tags from ULUTEK that were set up to perform activities for the purposes of the entrepreneurial ecosystem:
"ULUTEK Technological Development Zone was established by the Council of Ministers Resolution 2005/9310, published on 08.09.2005 and Official Gazette 25930, and is located in the Bursa Uludag University Gorbule Campus 471.230 m2 area as Turkey's 17th Technology Development Zone," (www.ulutek.com.tr).

3.3. Business Growth Strategy

There are two types of growth in businesses: organic and inorganic. Organic growth is a business's ability to leverage its own power and resources to grow. In organic growth, there's a focus on new markets and new products, it's hard to grow. The external obstacles to organic growth are caused by saturated markets, increased competition, increased supplier and customer strength, and insufficient funding. Due to these barriers, there is a shift in growth strategy from organic growth to inorganic growth (IronGrass and Sweet, 2017: 320). Growth strategies are grouped together as integration strategies, diversification strategies, external growth strategies, and explained as follows (Tumors, etc.). 2018: 94-97, www.timder.org.tr):

First, integrative strategies are defined by the business in the event that the product and market remain the same and are classified as horizontal-vertical integration strategies. Businesses that implement a horizontal integration strategy are exemplified by businesses that implement this horizontal integration strategy to expand operational area to maintain market dominance, and businesses are looking for an increase in the number of service production points to achieve this goal. The strategy to follow is market penetration, product differentiation, and market differentiation. Market penetration means greater market penetration and there is no change in this strategy because it is the ultimate goal of increasing sales. The product differentiation strategy refers to differentiation of the product in terms of quality, design, packaging by the business and is intended to increase market dominance. The market differentiation strategy is to find new uses for existing products and to identify and market those who are not using the product.

Strategies for growth of resources or distribution channels are vertical integrator strategies. Backward vertical growth is called growth in resources, while forward-looking vertical growth is called growth in distribution channels. One example is a forward-looking vertical growth where a company that produces an aircraft engine also starts production. The vertical growth of retroactive growth may be exemplified by the investment of an aircraft manufacturer in aircraft engine production. Secondly, diversification strategies refer to market with a new product or strategies for opening up to new markets with existing products and involve one-way and multiple-way diversification in the market. One-way diversification includes the focus on a product and the search for new markets. There is also a strategy to introduce new products that come with the use of new technologies in the current market. The range of diversification strategies refers entirely to the new market and new product insights. Finally, another growth method is realized through external growth strategies. The business's choice to grow using other business-owned resources is seen as an example of a strategy for external growth, and again mergers, acquisitions, joint ventures, and methods of external growth can be considered.

3.4. Technology Parks & Business Growth Relationship

Growth is key to business objectives. Businesses are open systems that interact continuously with their environment and are strongly influenced by their environment. So there's a live organism analogy that you can do for business. It is influenced by all the changes that occur economically, socially, politically and technologically. Businesses need to stay successful and continue the process with a modern management insight to maintain and grow their presence, including production, competition, quality, distribution, customer-driven service and all aspects of the business. Together with a balanced growth process, they have continued to do so in strategic ways and contributed to the development process. In this regard, they may require development and support in order to meet the various needs of the social and economic sphere, present a new product or service to existing markets that will result in success, develop processes that are constructed through the necessity of developing an application, method or business model, and the implications of these processes, through an innovative way of ensuring sustainability in a constantly-varying competitive environment, and in the context of the struggle, the need to continuously alter the products, methods of production, and services of entrepreneurs in this sense. One of the environments where that need is taken care of is technoparks. With innovative approaches to technoparks, companies are given training, mentoring, information support, laboratory support, which contributes to their growth. Technoparks also lead the way for application-oriented research and new ideas. Technoparks are a key tool in the growth of companies, including R&D projects, university industrial cooperation, strategic R&D efforts and the implementation of these studies, commercial product practices, export growth and competitive advantage, support of all fields, and growth of industrial companies, and are again pioneering in the growth of businesses, such as IT, marketing and advertising companies, factories, that have been at the point of co-operation.

4. METHOD

4.1. Model and Hypotheses of Research

The research model and hypotheses undertaken for the purposes of the study are as follows:

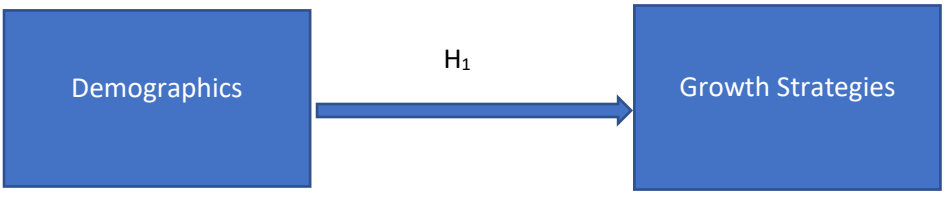

Figure 1. Model of Research

The model created to test hypotheses established in the context of this theoretical framework is considered to be the "Demographic Properties" argument. "Growth Strategies" is treated as an argument. The conceptual framework and the overall structure of research agreed to test the following hypotheses.

H1: Participants' growth strategies differ significantly from demographic factors.
H1a: Participants' growth strategies differ significantly from age.
H1b: Participants' growth strategies differ significantly from gender to gender.
H1c: Participants' growth strategies differ significantly from their level of education.
H1d: Participants' growth strategies differ significantly from work experience.
H1e: Participants' growth strategies vary significantly from how they operate in the technopark.
H2: According to demographic features, there is a relationship between participants' growth strategies.

4.2. Universe and Sampling

The universe of research is 78 entrepreneurial firms based at ULUTEK Teknopark, under the umbrella of the University of Uludag. The research consists of 48 voluntary participants selected by random sampling method.

4.3. Data Collection Tools

On a two-part scale, prepared for research, the first part relates to the demographic features of participants. The second part is aimed at developing growth strategies.
Scale of Growth Strategies: A "Scale of Growth Strategies" developed by Sekman (2017) is used to measure participants' growth strategies. The scale of growth strategies is two-dimensional and consists of 12 items, and there are no inversely coded materials. The 1st, 2nd, 3rd, 4th, 5th, and 7th items on the scale represent the "Strategies for Manufacturing Marketing and Innovation in the Market" dimension. Articles 6, 8, 9, 10, 11, and 12 represent the size "Strategies for New and Major Markets". Scale is included in the questionnaire form as a five-limerite type. Scale items include responses such as "1= Not important, 2=Not important, 3=Not important, 4=Important, and 5=Very important".

4.4. Analysis Method

The research used an analysis of the data obtained from participants' responses to the SPSS statistical packet program developed for social sciences. The research analyzed the correlation between growth strategies and demographic characteristics of entrepreneurs in the UluTEK University of Bursa and used parametric tests such as Anova and T-test to determine the difference between variables.

5. FINDINGS

5.1. Demographic Data Findings

33 of the participants were male and 15 female participants. Given the age of participants, it is understood that there is a greater density in the range of 25-30 and 31-35. Participants' level of education is understood to be at a higher level of pre-bachelor's and bachelor's degrees, with business experience concentrated between 1-5 and 6-10 years. As a result of the technology park's operating time, the startup firms are likely to operate within 0-6 months and 6 months to 1 year in the technopark. Detailed information about the demographic data is shown in Table 2:

Table 2. Demographic Data Findings

		N	%
Gender	Female	AD 15	AD 31
	Male	AD 33	AD 69
Age	18-24	AD 3	6.3
	25-30	AD 17	35.4
	31-35	AD 19	39.6
	36-40	AD 5	10.4
	41 and up	AD 4	8.3
Level of Education	Elementary school	0	0
	High school	AD 5	10.4
	Pre-licensing	AD 15	31.3
	License	AD 22	45.8

	Graduate	AD 6	12.5
	1-5 years	AD 19	39.6
	6-10 years	AD 17	35.4
Work Experience	11-20 years	AD 9	18.8
	21-30 years	AD 3	6.3
	31-Over	0	0
	0-6 months	AD 10	20.8
	6 months to 1 year	AD 12	AD 25
Activity Time in Technopark	1 year to 2 years	AD 15	31.3
	2 years to 5 years	AD 8	16.7
	5 years and up	AD 3	6.3

5.2. Reliability and Validity Analysis

Accountability and validation analysis results for the scale of growth strategies are as follows in Table 3:

Table 3. Results of Reliability and Validity Analysis of Scale of Growth Strategies

Sampling Rate (KMO)		16.81
Bartlett's Test	Ki-Square Value	537.21
	df	AD 6
	p	120.00
Variables for Growth Strategies	Factors	
	AD 1	AD 2
Becoming the first company to promote new brands and products in the market	12.942	
Your go-to-market product/service innovation and frequency	12.932	
Our business has high quality superproducts in the market	176.70	
Taking over a high-income market segment	728.78	
To capture technology leadership through R&D activities and to capture the promise of markets	698.68	
Acquire a larger market segment than our competitors	689.69	
Enhancing our ability to develop product design technology and manufacturing processes		12.382
The activity of our sales and distribution channels		6.899
Reduce production costs to maintain our competitiveness		6.862
Continued improvement and improvement of our existing product/services on the market		3.722
Evaluate new business and market opportunities identified		691.61
Responding to different customer needs in different markets		12.564
Described Variance	61.741	11.218
Total Variance	72.95	
Alpha Value for Factors	193.90	809
Alpha Value for Entire Scale	3.937	

In the study, the scale of Growth Strategies was used. In a reliability analysis of scale, "Croncbach Alpha Coefficient method" is done, and in validity analysis, "Descriptive Factor Analysis" is done. With the Keiser-Meyer-Olkin (KMO) and Barlette Tests of Globalism, data has been found to be compliant with factor analysis. Keiser-Meyer-Olkin (KMO) demonstrates the suitability of the data for this analysis if the test rate is 0.60 and above (Nakip 2003:409; Tabachnick and Mark). 2001: 589). The scale is seen to be meaningful in terms of the CDOs of 811 and the Barlette Global Test (Sig=0,000). A descriptive factor analysis for the scale of growth strategies showed that the scale explained a 2-dimensional structure and 72,959 of the total variance. Factor charge value is at least 30%, which is generally accepted in social sciences, and values above 50 are considered sufficient. (No and ark. 1998: 385).

5.3. One-Way Variance Analysis (ANOVA) Results

The hypotheses that were created to determine if their participation's growth strategies varied from demographic factors were tested using one-way variance analysis (ANOVA) and the results of the analysis were evaluated below. A one-way analysis of variance (ANOVA) has been conducted to determine whether growth strategies differ by age, but prior to this analysis, homogeneity of variances, the fundamental assumption of the analysis, is required. The "Levene Test" was performed to determine whether the variances were homogeneously distributed, and the results are as follows in Table 4:

Table 4. Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Growth Strategy	6.818	AD 4	AD 43	120.00

Seen in Table 4, p is valued at 0.000. P values less than 0.05 indicate that variances are not homogeneously distributed. The Welch and Brown-Forsythe tests are used alternately when the homogeneity of variants, the main assumption of one-way variance analysis (ANOVA), is not provided. In this context, the data was first tested by Welch and Brown-Forsythe.

Table 5. Average Growth Strategies

	Sum of Squares	df	Mean Square (song)	F.	Sig.
Between Groups	2.513	AD 4	628.68	1.671	112.174
Within Groups	16.170	AD 43	376.36		
Total	18.683	AD 47			

As part of the study, the table 5 shows that due to the fact that the one-way variance analysis F-value is 1,671 and p is 0,174 (p:0,174>0,05) participants' growth strategies do not differ significantly from the age factor. The H1a hypothesis is not supported in this context of data.

Table 6. Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Growth Strategy	Based on Mean	4.538	AD 3	AD 4	12.07

A one-way variance analysis (ANOVA) has been done to determine if growth strategies differ from the educational situation, but prior to this analysis the homogeneity of variants described as the fundamental assumption of the analysis is required. In this context, a Levene test was performed to determine whether the variants were distributed homogeneously. Table 6 shows the results of the Levene test.

Table 7. Anova Testing for Growth Strategies Training Status

	Sum of Squares	df	Mean Square (song)	F.	Sig.
Between Groups	2.308	AD 3	769.79	2.067	118.18
Within Groups	16.375	AD 4	372.32		
Total	18.683	AD 47			

As part of the study, one-way variance analysis shows that due to the F-value of 2,067 and p of 0.118 (p:0,118>0.05) participants' growth strategies do not differ significantly from their education state. The H1c hypothesis is not supported in this context of data. The result of the Levene test in Table 8 is that p=0,789>0,005 can perform a one-way variance analysis.

Table 8. Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Growth strategy	350.350	AD 3	AD 4	789.79

Table 9. Growth Strategies Business Experience: Anova Result

	Sum of Squares	df	Mean Square (song)	F.	Sig.
Between Groups	1.016	AD 3	339.39	3.843	12.478
Within Groups	17.67	AD 4	12.402		
Total	18.683	AD 47			

As part of the study, one-way variance analysis shows that because F is 0.843 and p is 0.478 (p=,478>0.05) growth strategies do not differ significantly from business experience. The H1d hypothesis is not supported. As a result of the Levene test in Table 10, p=0,365> 0.05, it is found that it can perform a One-Way Variance Analysis.

Table 11. Growth Strategies Anova for Activity in Technopark

	Sum of Squares	df	Mean Square (song)	F.	Sig.
Between Groups	2.170	AD 4	12.543	1.413	246.26
Within Groups	16.512	AD 43	384.34		
Total	18.683	AD 47			

Table 10. Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Growth strategy	1.109	AD 4	AD 43	365.36

As per Table 11 under the study, due to the fact that the F-value is 1,413 and p is 0.246 (p=0,246>0,05) growth strategies do not differ significantly from the operating time in the technology park. The H1e Hypothesis is not supported.
Independent Sampling t-Test Results

Table 12. Test of Homogeneity of Variances

		Levene's Test for Variances				
		F.	Sig.	t	df	Sig. (2-tailed)
Growth Strategies	Equal variances	1.060	309.39	395.39	AD 46	695.65
	Equal variances not assumed			12.41	35.908	662.62

Examination of Table 12 above indicates that p is greater than 0.05 (p=0.05<0.695). The growth strategies of entrepreneurs do not differ materially from gender. Hence, the H1b hypothesis is not supported.

5.4. Relational Analysis Findings

The data is primarily looked at for skewness and distortion (Kurtotis) to check the normal distribution state. Although different opinions are given on the range in which the normal distribution value range should be within, this was evaluated by George and Mallery (2010), which stated that it should be within the ± 2 confidence range.

Table 13. Values for Correlation Analysis

Variables		Strategies for New and Large Markets	Marketing Manufacturing and Innovation Strategies in the Market	Growth Strategies
Your age	Pearson Correlation	-6.123	-6.024	12.052
	Sig. (2-tailed)	12.407	187.80	0.781
Your gender	Pearson Correlation	-6.080	-6.019	-.381*
	Sig. (2-tailed)	6.588	6.898	12.034
Your age	Pearson Correlation	-6.075	-6,140	6.071
	Sig. (2-tailed)	612.61	344.34	706.76
Your Training Status Your Business Experience	Pearson Correlation	6.061	12.01	-6.020
	Sig. (2-tailed)	680.60	6.949	195.95
	Pearson Correlation	3.288*	123.16	337.37
Your operating time in the Technopark	Sig. (2-tailed)	12.047	357.37	12.043
	Pearson Correlation	-6.123	-6.024	180.820

N=48 **p < 0.01 * p < 0.05

As a result of the analysis, the data is shown to have distortion and distortion in the corresponding value range, and the data distribution is understood to satisfy the assumption of normality. The results of the correlation analysis show that there is no meaningful relationship between demographics and growth strategies. Again, there is no meaningful relationship between the lower dimensions of growth strategies and demographic characteristics based on the results of the correlation analysis, but a positive association between your business experience and strategies for new and bigger markets has been found at p<0.05 meaningfulness level (r=,288*). Although the literature is different classifications, it is generally interpreted as having a strong

relationship (1,000-30), weak (.31—.49), medium (.50-.69), strong (.70-.100) (Bunny, 2006). In this case, the hypothesis H2 is rejected.

6. RESULT

Through technology parks, one of the most important activity centers of the entrepreneurial ecosystem, many benefits and support to business enable social goals — competition, quality, innovation, new markets — and, in many ways, added value to the national economy. In this way, the technology parks are important in the growth strategies of their businesses. In competitive conditions, the ability of businesses to sustain their activities in the entrepreneurial ecosystem depends on the product of accurate information and the adoption of a model for the business. And to meet that need, entrepreneurs need to be open to collaboration and always having support. In this sense, the key centers of the entrepreneurial ecosystem are the technoparks, which promote entrepreneurship, and provide a sustainable environment of development, providing a variety of benefits and amenities and information sources, and driving huge change and development, both locally and globally.

This research analyzes the growth strategies and differentiation of entrepreneurial firms in technoparks based on demographic factors. As a result of these analyzes, the majority of participants were between 30 and 40 years old, and male participants were more than twice as likely as female participants. As a level of training, participants are often found to be pre-licensed and licensed, with businesses that are only recently established in terms of experience. Most of the participants were found to have a total time of 0-2 years. Participants appear to have answered a significant number of questions. It doesn't matter; they don't seem to prefer it. Participants' preferences for growth strategies have shown no meaningful variation. Participants favored both growth strategies by almost the same margin. Arguably, the strategy for new and big markets is more favored. However, the results of the analysis show that participants' growth strategies do not vary according to demographic preferences.

In light of this data, it has been concluded that young entrepreneurs in the technopark, who are young entrepreneurs who are new in their fields, have not differed in their growth strategies, and that participants have remained undecided in their growth strategies. The strategies that companies determine today are an important measure of their future. Firms aware of their preference for growth strategies move forward, taking safer steps into the future. In this context, the ability of technoparks to outline their growth strategies can be important both for the future of firms and for the continuity of technoparks, and in this sense, technoparks are focused on not only growth strategies, but also particularly in the universities where it is founded, and are involved in high interaction with consulting firms, technology companies and entrepreneurs. This gives them an innovative understanding of academic collaboration as well as providing employment opportunities for graduating students. In the context of an entrepreneurial ecosystem, the physical space provided in the technoparks, the economic stimulus and support, contributes from all directions to entrepreneurs. These reforms, which have been updated in recent years, are particularly well supported in a number of areas, including R&D, innovation, sustainability, recognizability, new products and access to new markets, although there are still some constraints and hurdles to resolve. Addressing these problems entails the introduction of technoparks, one of the most valuable centers of the entrepreneurial ecosystem, academic inclusion of all universities into the curriculum, raising awareness in the entrepreneurial community, securing university-industry cooperation, and building upon human relations

7. CONCLUSIONS

By petrographic analysis, the parent rocks of the ceramics and the rock fragments and minerals in the additives were divided into groups. According to these data, answers were sought for these questions, whether their possible sources were local or brought from outside. In this regard, firstly, the geological formations of the region and the formations related to the production places of the ceramics known to be produced in different regions were determined.

The question of whether the artifact found in archaeological studies was produced in that region, whether it was local or came from outside, is important. The answers to these questions provide the basis for explaining inter-regional relations and intercultural connections. This study also sought answers to these questions and formed a source for future studies.

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