Academic Inbreeding: Impacts on Creativity and Innovation in Higher Education

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KEYWORDS
Academic Inbreeding, Creative and Innovative Skills, Faculty Members, Higher Education

ABSTRACT
This study examines the impact of academic inbreeding on organizational creativity and research productivity. Academic inbreeding refers to a situation in the academic community where an institution employs its graduates and ensures their advancement within the academic ranks. The results indicate no statistically significant difference in organizational creativity between participants with academic inbreeding and those without. Qualitative findings highlight the importance of institutional prestige, stability, and efficiency but indicate that these factors do not significantly influence organizational creativity. The study also investigates the role of academic inbreeding in fostering innovative behaviour, revealing a positive but modest impact. The qualitative insights propose that academic inbreeding may lead to uniformity and reduced innovation. Creating an environment where individuals can integrate innovative behaviours into their processes is crucial to fostering innovation in universities. The research suggests that participants without domestic academic inbreeding perceive higher organizational creativity, indicating that mobility might enhance creativity. Despite criticisms that limited mobility leads to stagnation, other studies highlight the benefits of understanding organizational culture through academic inbreeding. Therefore, the study underscores the necessity of balanced strategies that encourage mobility and innovation while acknowledging the potential strengths of academic inbreeding.

1. Introduction

Today's rapid technological innovations and developments can cause many changes in the field of education. With the influence of technology, the use of information can lead to different situations or practices in terms of human resources and processes. Higher education institutions are essential in ensuring local, regional, and national development in educating individuals [1]. In addition, these institutions are critical in the socio-economic and scientific development of a country's future [2]. In today's world, universities play an essential role in adapting to the needs of the age and serving society. It can generally list the crucial duties of universities in three main categories: education, research and community service [3]. Moreover, as noted by de Wit and Altbach [4], universities not only support the well-being and expertise of their staff and students but also undertake to adapt to rapidly changing world conditions. Although the university has varied in different geographies regarding its function and scope, community service activities are another essential duty of academics, in addition to their education and research duties. As can be accepted, a faculty member is an enlightened person, has extensive knowledge, is well-mannered, has a broad horizon, creates the development dynamics of the society, leads the society, and forms the mental team of the society [5]. In this context, academics are expected to be aware of social problems and be able to produce solutions to these problems [6].

Moreover, career processes, qualifications, and academic competencies are gaining greater importance today. For the development of universities, faculty members are expected to shape their careers within the framework of innovative behaviours. Higher education institutions aim to train qualified, creative academics who can work efficiently [3]. The ability of academics to manage career mobility is critical. In this context, academic inbreeding refers to a faculty training its graduate students and employing them within its structure. However, this may cause the faculty to maintain its own research and teaching culture without allowing diversity. In this case, newly arrived faculty members may become the same experienced faculty members who trained them. The necessity of organizational creativity may not be met through innovative behaviours. For this reason, some people believe that reducing academic inbreeding in higher education institutions is necessary [7]. It shows that incorporation hinders universities from employing the best candidates and does not allow organizational creativity

and academics to exhibit innovative behaviour [8]. Creating a suitable university environment is necessary to increase academics' creativity and ensure the development and sustainability of educators.

At this point, studies generally evaluate the relationship between academic inbreeding and academic performance [9]-[11]. It is worth noting that one indicator of academic inbreeding is doctoral education completed in the same discipline. Also, academic performance can be measured by individual qualities such as the number of publications, citations, impact factors, and the base score determined for admission to the department or the exam success order of the last accepted candidate. Although the h-index is widely used, it is essential to recognize its limitations and the criticisms it has received [12]. A widely accepted view in correlational analyses is that academic inbreeding can negatively affect academic performance, and therefore, an inverse relationship may exist between academic inbreeding and academic performance [13].

Academic non-inbreedings are faculty members who have completed their master's and doctoral education and work at different universities [14]. For universities, selecting the highest-achieving individuals among students is essential in maximizing research productivity and participating in worldwide rankings. Additionally, Organizational creativity is vital for higher education institutions [15]. Therefore, reducing academic inbreeding and encouraging innovative ideas will make universities more competitive and productive.

İnanç and Tuncer [7] stated that academic inbreeding is prevalent in regions like China, India, Korea, Europe, and Turkey, with inbreeding rates exceeding 50%. This phenomenon likely involves cultural or contextual factors that warrant exploration from a sociological standpoint. From this perspective, the study aims to examine the effects of academic inbreeding on organizational creativity and innovative behaviour of academics in higher education and establish a conceptual basis on this subject. The research was conducted using mixed methods on the effects of academic inbreeding, organizational creativity, and academics' innovative behaviour at state universities in Turkey.

2. Academic Inbreeding

According to the online [16] dictionary of etymology, in biological science, inbreeding refers to the continuation of a lineage and internal reproduction. Additionally, this concept emphasizes the genetic similarity between individuals who are descended from lineage or are related by blood, which can also be referred to as endogamy. In the academic field, this concept, called academic inbreeding in the international literature, refers to where universities employ doctoral graduates as lecturers, and these people continue their academic careers at the same university. This situation is also called Academic Incest [17], Academic Nepotism [18], Academic Guardianship [19], Academic Endogami [20], Internal Feeding [21]-[22]. It also appears in the literature with different terms, such as Academic Autarchism [23]. In the context of higher education institutions, this phenomenon has significant implications for the creativity and innovation of faculty members, which is the focus of this study.

In some studies, academic inbreeding is associated with localism [24]. Academic inbreeding, the practice of recruiting one's graduates, has been widely used in most academic systems for centuries. According to some, the importance of this negative situation began to attract attention at the beginning of the 20th century [9]-[10].

Many reasons can be given for the spread of academic inbreeding in universities. It is observed that most studies focus on the results of academic inbreeding, not its causes [25]. While most studies on the causes of institutional academic inbreeding focus on factors at the level of organizational status, organizational cultures, disciplinary cultures, geographical location of the organization, higher education institution and recruitment practices, disadvantaged groups, and gender, racial or socio-cultural backgrounds can be ignored [26]. In addition, Pratama and Amin [27] stated in their study that academic inbreeding is intense in Indonesia, and the main reasons for this are geographical factors, historical factors and university status. Another reason for academic inbreeding is the low financial conditions in universities. Economic reasons, such as the lack of suitable rental housing and making it

difficult to move from one place to another, create an obstacle to movement [9]. In addition, faculty members act more subjectively by prioritizing evaluating their graduates [19].

Aside from the standard view, historical and cultural traditions are among the reasons for academic inbreeding in higher education. Individualism is based on the fundamental premise that individuals are independent of each other and think and act on their own. On the other hand, the essential element of understanding collectivism is that the individual is affiliated with a group and has mutual obligations. In the collectivist culture, the group significantly impacts the individual regarding values, attitudes, and behaviours [28]. Academic inbreeding is widespread worldwide and is standard practice in dozens of countries. Hiring graduates is considered neither unusual nor problematic in many education systems. This model has been in effect for many years. It is often considered a source of pride for higher education institutions because universities can claim that educating academic staff proves they can retain their best intellectual talent [9].

On the other hand, organizational creativity involves developing valuable and useful new products, services, ideas, procedures, or processes by individuals collaborating within a complex social system [29]. This concept emphasizes the importance of collective rather than individual creativity. For universities, enhancing faculty members' organizational creativity is crucial for adapting to rapid technological advancements and maintaining competitiveness. Educational institutions must adapt to changing environments, achieve better outcomes, compete effectively, and prepare students for an evolving world, with teachers and administrators playing critical roles in implementing changes and innovations driven by central policies [30]. Additionally, Scott and Bruce [31] highlighted that the success of universities in realizing practical innovations relies on faculty members' awareness and understanding of their importance. Assessing faculty members' knowledge, skills, and sensitivity to innovation is essential. To sustain success, universities must generate new ideas, plan systems to implement these ideas, leverage emerging opportunities, and adapt to continuously changing conditions [32].

3. Method

A. Research Design

This research adopted a mixed-methods approach, integrating both quantitative and qualitative methods to enhance data credibility through mutual confirmation [33]. In the quantitative dimension, participants responded to the Organizational Creativity Scale (OCS) by Çavuş [34] and the Innovative Behavior Scale (IBS) by Çimen and Yücel [30]. The qualitative dimension involved four open-ended questions addressing faculty members' demographics, academic background, title, position, and professional seniority. This mixed approach ensures a robust and credible analysis of academic mobility and its implications. The study's sample comprised various public higher education institutions in Turkey. For the quantitative part of the research, 402 participants participated, and 20 academics participated for the qualitative part.

B. Data Collection

Before collecting data in the quantitative part of the research, permission was obtained from the Ethics Committee and the Scientific Research Ethics Committee in 2022 from Canakkale Onsekiz Mart University. Data was collected by transferring the interview form used in the research to the online Google form web application. In the study, qualitative data was provided through interviews. In the interview form prepared by the researcher, it was possible to ask questions and get more detailed information without losing the validity of the previously prepared topic headings and the scope of the topic [35].

C. Data Analysis

The research utilized quantitative and qualitative methodologies to explore academic mobility among faculty members. Statistical analyses were conducted using SPSS software, with reliability assessed

via the Cronbach Alpha coefficient and normality evaluated through Kolmogorov-Smirnov and Shapiro-Wilk tests. Given the standard distribution, parametric tests and t-tests were applied, with Cohen's d used to assess effect size. In the qualitative component, descriptive and content analysis methods [33] were employed to derive deeper insights from the data. Interviews were transcribed, meticulously analyzed, and categorized into themes through coding, ensuring reliability with an inter-coder agreement of 78%, calculated using the Miles and Huberman [36] formula. Purposeful sampling was used to select twenty academic staff from state universities for the 2023-2024 academic year, considering their post-doctoral integration at the same or different institutions. Ethical considerations were maintained by anonymizing participants as P1-P20.

4. Quantitative Findings

The tables in this section show the study's quantitative data results. Table 1 lists the personal characteristics of the research participants.

Tablo 1. Personal characteristics of the participants

Variable	Level	n	%	Variable	Level	n	%
Gender	F	168	41,8	Title	Prof.	122	30,3
	M	234	58,2		Assoc. Prof.	133	33,1
Age range	25 under	1	0,2		Dr Lecturer	118	29,4
	26-35 between ages	48	11,9		Lecturer	12	3,0
	36-45 between ages	181	45,0		Research Assist.	16	4,0
	46-55 between ages	107	26,6		Other	1	0,2
	56 age and over	65	16,2	Domestic 1 year	Yes	154	38,3
Professional Tenancy Period	1-5 years between	15	3,7		No	248	61,7
	6-10 years between	46	11,4	1 year abroad	Yes	96	23,9
	11-15 years between	96	23,9		No	306	76,1
	16-20 years between	74	18,4	Academic Inbreeding	Yes	182	45,3
	21 years over	171	42,5		No	220	54,7

According to Table 1, 234 (58.2%) participants are men and 168 (41.8%) are women. The participants' three highest age ranges are 36-45 with 45%, 46-55 with 26.6%, and 56 years and above with 16.2%. There is only 1 participant under the age of 25. Regarding professional tenure, the highest rate is for the group over 21 years, with 42.5%. The 11-15 years professional experience group ranks second with 23.9%. The group with the lowest rate is the 1-5 year group with 3.7%. When the research participation rate is examined regarding the title variable, the three highest titles are academicians, Associate Professor at 33.1%, Professor at 30.1% and Lecturer at 29.4%, respectively. The question asked the participants was, Have you ever been to a university in the country for one year or more, other than the university where you have a staff, during and after your doctorate? Two hundred forty-eight participants (61.7%) answered No, and 154 (38.3%) answered Yes. The question asked the participants was, Have you ever been to a university abroad for one year or more, apart from the university where you have a staff, during and after your doctorate? Three hundred six participants (76.1%) answered No, and 96 (23.9%) answered Yes. When the universities where the participants

received their master's and doctoral degrees and where they had staff were examined, it was determined that 45.3% of the participants experienced inbreeding.

Tablo 2. Independent Variable T-Test Results Between Organizational Creativity Scale and Academic Inbreeding

Academic inbreeding	n	$\bar{X}$	Sd	S.E.Mean	t	p
Yes	182	2,98	0,67	0,05	1,684	0,09
No	220	2,87	0,71	0,04		

p= Significance value

According to Table 2, the average value of participants with academic inbreeding is $\bar{X}$=2.98±0.05, and the average value of participants without academic inbreeding is $\bar{X}$=2.87±0.04. According to the t-test results, there is no statistically significant difference between academic inbreeding and organizational creativity [t(400)=1.684, p>0.05].

Tablo 3. Independent Variable T-Test Results Between Innovative Behavior Scale and Academic Inbreeding

Academic inbreeding	n	$\bar{X}$	Sd	S.E.Mean	t	p	d
Yes	182	3,08	0,80	0,05	2,337	0,02*	0,23
No	220	2,89	0,82	0,05			

*=p<0,05, d=Cohen d effect size coefficient

According to Table 3, the average value of participants with academic inbreeding is $\bar{X}$=3.08±0.05, and the average value of participants without academic inbreeding is $\bar{X}$=2.89±0.05. According to the t-test results, there is a statistically significant difference between academic inbreeding and innovative behaviour [t(400)=2.337, p<0.05]. According to Cohen's d effect size coefficient, the effect of academic inbreeding on innovative behaviour is small (d = 0.23).

Table 4.Independent Variable T-Test Results Between Organizational Creativity Perceptions and Domestic Academic Mobile Inbreeding

Domestic Academic Mobile Inbreeding	n	$\bar{X}$	Sd	S.E.Mean	t	p	d
Yes	154	2,82	0,71	0,05	2,282	0,02*	0,23
No	248	2,98	0,68	0,04			

According to Table 4, the average value of participants with domestic mobile inbreeding is $\bar{X}$=2.82±0.05, and the average value of participants without domestic mobile inbreeding is $\bar{X}$=2.98±0.04. According to the t-test results, there is a statistically significant difference between domestic mobile inbreeding and organizational creativity perception in favour of those who do not have domestic mobile inbreeding [t(400)=2.282, p<0.05]. According to Cohen's d effect size coefficient, the effect of domestic academic mobile inbreeding on organizational creativity is small (d=0.23).

5. Qualitative Findings

The faculty members who participated in the qualitative research had varied demographic backgrounds. The gender distribution was 55% men and 45% women. Regarding age, 20% were between 26-35 years old, 45% were between 36-45 years old, 25% were between 46-55 years old, and 10% were 56. Regarding professional experience, 20% had 6-10 years, 25% had 11-15 years, 20% had 16-20 years, and 35% had 21 years or more of professional experience. As for their academic titles, 35% were professors, 20% were associate professors, 20% were doctor lecturers, 15% were lecturers,

and 10% were research assistants.

The four main themes in this part of this study were examined in detail. Twenty faculty members participated in the research. 12 (60%) faculty members participating in the survey are inbreeding participants who completed their undergraduate, graduate and doctoral education at the same university and are employed at the same university. 8 (40%) faculty members who participated in the research are non-inbreeding participants who completed their undergraduate, graduate and doctoral education at different universities and do not work at the university they graduated from. The research participants are 7 (65%) faculty members with academic mobile inbreeding and 13 (35%) who do not have mobile non-academic inbreeding. Academic mobile inbreeding means staying at a different university, domestic or abroad, for at least one year after doctoral graduation.

Opinions of Faculty Members About the Strengths of Academic Inbreeding

The first question of the interview form to determine the opinions of faculty members about the strengths of academic inbreeding is as follows:

Question 1. According to the views of faculty members, what are the strengths of academic inbreeding?

The categories, codes, and number of participants created for the strong theme are given in Table 5

Table 5.Information On The Strong Theme Of Academic Inbreeding

Theme	Category	Code	n
Strengths	Institutional Belonging	Familiarity with the Institution	12
		Stability	6
		Continuity	5
		Partnership	5
		Trust	4
	Corporate Culture	Harmony	8
		Cost	7
		Communication	4
		Strong Social	4
	Academic Culture	Productivity	7
		Information Sharing	6
		Job security	6
		High Motivation	4

When the opinions of faculty members about the strengths of academic inbreeding are examined according to Table 5, the opinions with the highest rates are familiarity with the institution under the category of institutional belonging, harmony under the category of institutional culture and efficiency under the category of academic culture.

Participant 2 expressed views on the strengths of academic inbreeding as follows:

Academic inbreeding is essential for the institutional sustainability of universities and departments, the continuation of the academic culture and the creation of a tradition within the master-apprentice relationship. Suppose a doctoral student, a potential academician, learns critical skills from his advisor by observing the department and university he is in during his doctorate. In that case, he can transfer these skills to his students and ensure that the quality of education is maintained without deteriorating if he continues as an academician at the university he graduated from. As someone who has graduated from the same university and knows the functioning, positive and negative aspects well, he can significantly increase positive and prevent negative situations (P2).

Academic inbreeding stands out as a reflection of the efforts of well-established and respected universities to protect their prestige and retain the qualified researchers they have trained. These universities' academic inbreeding tendencies have the potential to be a role model for newly established or developing universities by influencing their employment policies [21]. This can be considered part of academic institutions' efforts to protect and strengthen their knowledge.

Participant 4 expressed views on the strengths of academic inbreeding as follows:

Academic inbreeding, the practice of individuals working or studying at the same institution for an extended period, has several positive aspects. Familiarity with the institution's social and research environment enhances comfort and productivity. Long-term associations facilitate seamless, multidisciplinary collaborations, allowing researchers to efficiently leverage shared resources and support each other's teaching efforts. Additionally, those who have spent years at the same institution understand its political, cultural, economic, structural, and social dynamics, enabling them to navigate and contribute effectively. However, this practice must be carefully managed to prevent intellectual stagnation and ensure ongoing innovation (P4).

Supporting the research findings [37], graduate students expressed a positive opinion that universities prefer their graduates after graduation and that their sense of belonging to the university increases. It has been observed that postgraduate students exhibit a positive approach regarding the universities' preference for their graduates and their mastery of the existing organizational culture.

Sivak and Yudkevich [24] argued that academic inbreeding has become an ingrained practice in universities. These practices are tightly linked to beliefs, feelings of identity and belonging, and power relations that have developed over many years.

Opinions of Faculty Members About Weaknesses of Academic Inbreeding

The second question of the interview form to determine the opinions of faculty members about the weak aspects of academic inbreeding is as follows:

Question 2. According to the opinions of faculty members, what are the weaknesses of academic inbreeding?

The categories, codes and number of participants created for the weak theme are given in Table 6.

Tablo 6.Information On Academic Inbreeding Weak Contact

Theme	**Category**	**Cod**	**n**
Weak	Merit	Staffing	11
		Fair competition	7
		Favouritism	7
		Insecurity	5
	Academic Uniformization	Decline in Intellectual Diversity	12
		Decline in Innovation	12
		Academic Inactivity	8
	Academic Nepotism	Discrimination	12
	Academic clustering	Decreased creativity,	10
		groupings,	8
		Lack of diversity	8
	Academic copy	Insularity,	9
		Decrease in scientific activity,	8
		Inefficiency	7

According to Table 6, when the opinions of faculty members about the participants' academic inbreeding weaknesses are examined, the views with the highest rate are staffing under the merit category, decreasing intellectual diversity under the academic uniformization category, discrimination under the academic nepotism category, decreasing creativity and academic cheating under the academic clustering category. It is stated that narrow-mindedness is under this category. The opinions of some participants are as follows:

Participant 10 expressed their opinions about the weaknesses of academic inbreeding as follows:

Weaknesses in academic inbreeding include issues such as not being able to accept that one's student is a teacher, always seeing oneself as a student, not being able to experience scientific differences, and not being able to gain a different perspective (P10).

Participant 13 expressed their opinions about the weaknesses of academic inbreeding as follows:

It can prevent new ideas and perspectives from entering the university. The monotony of university academic staff may harm an innovative and creative university environment. It can limit the career advancement of introverted hires. It may lead to nepotism, the disappearance of objective evaluation, and fair competition within the university. Failure to recruit new faculty members from outside may reduce the university's competitiveness by limiting academic excellence and success (P13).

In İnanç and Tuncer's [7] study, it was found that the negative correlation between an academician's productivity and the percentage of inbreed faculty members in the same department was statistically significant. Additionally, researchers must consider that their productivity may decrease later in their scientific careers. In this context, it is essential that education and research policies in the academic world are shaped according to these findings and that academic staff provide a balanced working environment.

Participant 3 expressed his/her opinions about the weaknesses of academic inbreeding as follows:

It may create merit problems. In other words, an external scientist may not be accepted even though he/she is more qualified. While it may be advantageous for the faculty member to be acquainted with the faculty members in the academic unit, the problems they have previously experienced with these people may affect their academic performance. Academic inbreeding can cause complacency in faculty members. This complacency may slow down the academic progress of the faculty member and reduce educational motivation. It may also prevent faculty members from networking. Academic inbreeding can prevent a person from meeting more people in the academic community and building a network within that community (P3).

In the study of Horta et al. [13], it is claimed that the practice, often called academic inbreeding, hurts the scientific achievements of academics employed at the university where they received their doctoral degrees. It is emphasized that this situation has been discussed in a limited way in the academic literature and is primarily descriptive or speculative. Research suggests that academic inbreeding can have adverse effects on scientific outcomes. This effect has been measured as academics who tend to be introverts produce fewer academic articles than others and are more closed in sharing information with the outside world.

Opinions of Faculty Members About Academic Inbreeding Opportunities

The third question of the interview form to determine the opinions of faculty members about academic inbreeding opportunities is as follows:

Question 3. According to the views of faculty members, what are the academic inbreeding opportunities?

The categories, codes and number of participants created for the theme of opportunity are given in Table 7.

Table 7.Information About Academic Inbreeding Opportunity Theme

Theme	Category	Cod	n
Opportunity	Prestige	Becoming Familiar with Academic Culture	14
		Corporate reputation	11
		Breadth of the Academic Working Environment	7
	Quality	Institutional Stability	12
		Job security	8
		Breadth of Research Opportunities	7
	Organizational Efficiency	Preservation of Social Structure	10
		Learning Opportunities	8

When the opinions of the faculty members about the academic inbreeding opportunities of the participants are examined according to Table 7, the views with the highest rates are that of being familiar with the academic culture under the prestige category, institutional stability under the quality category, and preserving the social structure under the organizational efficiency category. The opinions of some participants are as follows:

Participant 8 expressed his/her opinions about academic inbreeding opportunities as follows:

Securing a position at the institution where one has completed one's doctorate provides significant job security. Academic tenure-track positions offer career advancement opportunities, such as promotions to professorships or administrative roles. Additionally, tenure at the same institution increases access to research projects, allowing individuals to discover new information and gain valuable research experience (P8).

The research findings show that these issues are important and worthy of attention in the university environment. In addition, it provides insight into how specific topics can impact academic activities and which points researchers attach more importance to. Since universities with deep roots are in the early stages of the country's higher education system and train faculty members for young universities, it is possible to frequently observe introversion in these universities [38].

Participant 3 expressed his/her opinions about academic inbreeding opportunities as follows:

To emphasize the opportunities that academic inbreeding can create, it can be stated that the levels of organizational alienation can be low, and organizational efficiency and effectiveness are high in this context since the recruited academics are familiar with the internal dynamics of the university where they start working, even during their student years (K3).

Participant 9 expressed his/her opinions about academic inbreeding opportunities as follows:

Academic inbreeding may offer some opportunities for academics who receive postgraduate education at the same university or institution and then continue to work at the same institution. There may be opportunities for closer cooperation. It may be easier to work on joint projects and share information among academics who studied at the same institution (P9).

This highlights the importance of maintaining the reputation and quality of academic institutions, increasing academic staff motivation and commitment, and promoting academic success. Additionally, preserving and continuing the "academic tradition" in the scientific community is considered a significant advantage, and therefore, faculties that maintain this culture are considered high quality [9].

Opinions of Faculty Members About Academic Inbreeding Threats

The 4th question of the interview form to determine the opinions of faculty members about academic inbreeding threats is as follows:

Question 4. According to the opinions of faculty members, what are the threats to academic inbreeding?

The categories, codes and number of participants created for the threat theme are given in Table 8.

Table 8.Information About The Academic Inbreeding Threat Theme

Theme	Category	Cod	n
Threat	Academic Corruption	Fixed Squad	14
		Academic Uniformity	14
		Low motivation	7
		Decrease in Cooperation	5
	Academic Nepotism	favoritism	9
		Decreased Equality of Opportunity	7
		Decrease in Fair Competition Environment	7
	Intellectual Infertility	Decline in Quality	8
		Decrease in Academic Mobility	7
		Decline in Scientific Productivity	6
	Academic Obsolescence	Academic Vicious Circle	12
		Bias towards Creative and Innovative Perspectives	8
		Resistance to Change	4

When the participants' opinions about academic inbreeding threats are examined according to Table 8, the views with the highest rate are that there is academic sameness with fixed staff under the category of academic corruption, nepotism under the category of academic nepotism, decline in quality under the category of intellectual infertility, and academic vicious circle under the category of academic obsolescence. The opinions of some participants are as follows: Participant 9 expressed his/her views on academic inbreeding threats as follows:

Working in the same institution where one completed their doctorate can lead to job satisfaction issues over time, potentially reducing motivation and performance. While offering career opportunities, academic positions may also present limited advancement prospects compared to other sectors, hindering the achievement of career goals. The requirements of tenure-track positions can restrict creativity and innovation, and the availability of these positions may be geographically limited, reducing employment options. Additionally, political pressures can compromise academic freedom and the objectivity of research and teaching. The intensive academic workload can make work-life balance challenging and increase stress levels (K9).

Most studies on the subject, both quantitative and qualitative, show that academic inbreeding harms academic practices, especially research productivity. However, it is also likely to affect teaching and learning practices [38] negatively. According to the research conducted by Karadağ and Çiftçi [39], it was determined that, regardless of the field, inbreed academics have fewer national and international published articles, citations and project management experience than their non-inbreed academic colleagues. Additionally, academic inbreeding has been found to hurt the research productivity of universities. In light of these findings, it is concluded that academic inbreeding hurts higher education.

Participant 3 expressed his/her views on academic inbreeding threats as follows:

Academic inbreeding can undermine a university's academic goals by prioritizing graduates from within the institution over those from other universities despite their high-quality education and experience. Recruitment processes typically demand candidates with qualified academic publications, recognition, field expertise, free-thinking, and genuine academic qualifications—essential for international accreditation and rankings. Ignoring merit-based hiring practices threatens academic excellence and institutional integrity (K3).

When comparing the academic cultures of universities in Europe, it is thought that completing different stages of the education process in various universities and different academic traditions increases diversity in education. However, academic traditions in Turkey and some other countries approach this issue from a different perspective. Although there seems to be no particular attitude toward internal recruitment or academic inbreeding in Turkish universities, departments may prefer their students to academic positions [17].

6. Discussion

This research aimed to examine academic inbreeding in the context of creative and innovative skills in faculty members. The demographic and professional characteristics of the participants reveal notable trends regarding gender distribution, age, tenure, and academic mobility. Predominantly male, the participants mainly belonged to the 36-45 age group, with a significant portion having over two decades of professional experience, indicating a mature and experienced cohort. The leading academic ranks were associate professors and professors, showcasing high academic achievement. However, there are concerns about academic mobility, as many participants had not experienced long-term domestic or international mobility, leading to a notable portion obtaining advanced degrees and holding positions at the same institutions. This highlights the risk of academic inbreeding and the need for policies promoting academic mobility to foster diversity and innovation. The findings underscore the urgent need for initiatives encouraging faculty to gain broader experiences and perspectives, ultimately enriching the academic environment and mitigating the stagnation associated with inbreeding.

According to Berelson [40], academic inbreeding levels and typologies indicate the levels of specialization of different universities or countries in specific fields. Several factors can often cause this differentiation. For example, the areas of expertise and abilities of academic staff may influence universities' ability to specialize in certain areas. In particular, famous faculty members or experts in a particular field can increase the university's prestige and lead to more research. Some universities may have a long history and specialize in certain areas. Each university can determine its areas of specialization, considering its priorities, resources and regional or national needs. It causes differences and diversity in academic inbreeding levels.

Traditionally, it is a common practice in universities in Turkey to employ academics who have completed their undergraduate and graduate education at the same institution [37]. This approach is considered so normal that employing students as academicians in the same institution is the most natural, appropriate, and preferred method [17]. In Turkey, academic personnel retire to work in the same institution after starting their careers. It can continue until it happens [21]. The fact that a significant number of research assistants in Turkey have permanent positions may cause those who are weak in terms of academic success to remain in the institution, and this may also reduce academic mobility and cause academic inbreeding [3]. In some cases, academics looking for a job at another institution may be seen as problematic individuals who have been removed from the previous institution [9]..

The results of the research show that there is no statistically significant difference in terms of organizational creativity between participants who have academic inbreeding and participants who do not have academic inbreeding. Tavares et al. [41] in their study examining academics with a doctoral

degree in sociology in Portugal, found that academic internal diversification did not have a negative relationship with research productivity at the institutional level but only at the national level. These research results support the study. These results show that whether the participants have academic inbreeding is not a determining factor in the perception of organizational creativity. On the other hand, the qualitative findings of our research emphasize the importance of participants in preserving the prestige and quality of academic institutions, maintaining institutional stability, and increasing organizational efficiency. Although the findings highlight the advantages of working in a prestigious environment for employees in academic institutions, they show that these advantages do not significantly impact organizational creativity levels. On the other hand, the research conducted by İnanç and Tuncer [7] determined that the number of inbreeding faculties in a particular region regarding academic inbreeding in Turkey may harm the academic performance of all department members. They stated in their research that the scientific productivity of external academics is lower in departments with a large number of established academics.

When the opinions of faculty members about the opportunities of academic inbreeding are examined in the qualitative findings, the views with the highest rate are that of being familiar with the academic culture under the prestige category, institutional stability under the quality category, and preserving the social structure under the organizational efficiency category. In line with our results, when Zare and Mardani [42] examined the research productivity of academically inbred and non-inbred faculty members in Iran's best universities, they found that integrated faculties had 26% more publications than non-inbred faculty. Additionally, the h-index of citations and publications of incorporated faculties are 24.4% and 5.1%, respectively, and these rates are higher than those of non-incorporated faculties. Non-inbreed faculties are more successful in attracting research funding compared to integrated ones. It was determined that while integrated faculties (40.26%) were more willing to cooperate within the institution, non-inbreed faculties (13.54%) were more willing to cooperate internationally. A study conducted in Russia on the effect of academic inbreeding on the average publishing productivity of faculty members found that those who inbred and those who do not are equally productive in publishing [10].

The research results show a statistically significant difference between academic inbreeding and innovative behaviour. Based on the research data, it can be concluded that academic inbreeding positively affects innovative behaviour, but this effect is negligible. Individuals with academic inbreeding exhibit more innovative behaviours, but the magnitude of this effect is relatively low. Research results highlight the importance of raising awareness about academic inbreeding to encourage innovative behaviour in university environments. However, considering this effect's small magnitude, academic inbreeding must clearly explain innovative behaviour. These results show that academic inbreeding affects innovative behaviour, but other factors may also play a role in this relationship. According to the qualitative findings of our study, under the theme of the weaknesses of academic inbreeding, the participants stated that it would lead to academic uniformization and a decrease in the innovative behaviour of academics. These results are in line with the quantitative findings.

According to the research data results, participants who do not have domestic academic mobile inbreeding have a higher perception of organizational creativity. These results can guide the development of management and training strategies to raise awareness of domestic mobile inbred and encourage innovative behaviour. Unlike the findings, a study conducted in Portugal analyzed the effects of inbred and non-inbred academic staff and their mobility on scientific output. It has been concluded that if the mobility of academics is low, they publish less internationally, but their national scientific output is higher [43]. Another of the most significant criticisms of academic inbreeding is that inactivity between universities leads to scientific stagnation over time [44].

This study's qualitative and quantitative findings reveal a concerning trend regarding academic mobility among faculty members. The qualitative data shows that only 35% of faculty members

exhibited mobile academic inbreeding, defined as staying at a different university domestically or abroad for at least one year post-doctorate. This aligns closely with our quantitative results, where 61.7% of participants had not engaged in domestic mobility, and 76.1% had yet to pursue international academic experiences of similar duration. These findings highlight a systemic issue within Turkish public universities, as described by Aktan [23], which characterizes the environment with terms such as "academic guild system" and academic oligarchy. This insular, hierarchical structure significantly hampers academic mobility, potentially stifling intellectual diversity and innovation. The high rate of non-mobile academic careers underscores the necessity for policy interventions to promote greater mobility, which is critical for fostering a more dynamic and open academic culture.

Acknowledgement

This paper is based on Dr. Miray Dogan's doctoral thesis, titled Academic Inbreeding: Impacts on Creativity and Innovation in Higher Education, completed under the supervision of Prof. Dr. Hasan Arslan.

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