

**TEXT MINING AND KNOWLEDGE MAPPING OF POSTGRADUATE THESES ON
GENERATIONS IN TURKEY****Prof. Celalettin YANIK (Ph.D.)** **Assoc. Prof. Melih ENGİN (Ph.D.)** **ABSTRACT**

In the realm of social sciences, the concept of generation represents one of the most contentious areas. The problem lies not in the concept itself, but rather in the meanings attributed to it. The meanings attributed to the concept are used to establish marketing principles by comparing a group of individuals that are taken into consideration or based within a specific category with the basic characteristics that are assumed to have opposite qualities of this group. In this study, keywords were collected from the theses containing the word generation that were downloaded from the website where graduate theses belonging to the Council of Higher Education are published. In addition to the descriptive statistical findings on the year, university, and subject data of the theses, an association analysis of the keywords of these theses was performed using the Apriori algorithm. The research findings revealed that the majority of graduate theses on generation are master's theses, their popularity is increasing, and the keyword "generation" is associated with various fields such as behavior, difference, business, social relations, media, and conflict.

Key Words: Generation, Text Mining, Apriori, Türkiye.

Jel Codes: M10, M12, M14.

1. INTRODUCTION

The concept of generation, which emerged from the periodic and systematic differences between individuals, has attracted considerable attention in the literature and has become a subject of study in various disciplines, primarily sociology, psychology, and management science (Demirdağ and Gündüz, 2021: 103). The concept of "generation," which defines groups of people who are born and mature within approximately the same time period, corresponds to the expression of social life through the concept of time. However, this approach presents a reductionist structure and is far from explaining the unique character of generations as social groups (Çakır and Azman, 2022: 334). It should be noted that

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Makale Geçmiři/Article History

Başvuru Tarihi / Date of Application : 25 Temmuz / July 2024

Düzeltilme Tarihi / Revision Date : 1 Kasım / November 2024

Kabul Tarihi / Acceptance Date : 29 Kasım / November 2024

a group defined as individuals born within the same time period does not constitute a generation solely due to age, apart from its statistical meaning (Pyöriä et al., 2017: 2).

Mannheim, who holds an important place in generation studies, argues that individuals who belong to the same generation and share the same birth year have a common position within the historical dimension of the social process. According to Mannheim, as a sociological phenomenon, generation is ultimately based on the biological rhythm of birth and death. At this point, Mannheim emphasizes that while a phenomenon based on another factor cannot exist without that factor, but some of its unique features should not be denied. On the other hand, Mannheim argues that while membership in the same historical community constitutes the broadest criterion for belonging to a generation, a generation could not exist as a phenomenon of social position without social interaction among people. He asserts that only biological processes involving birth, aging, and death would be present (Mannheim, 1952: 290-303). As Mannheim states, it is not enough for a group of individuals to be born in the same time period or for a certain period of their life stages to overlap for them to be considered part of the same generation. What creates a similar position among individuals is their being in a position to experience the same events and the impact of these experiences on their consciousness in a similar layered manner. Otherwise, it cannot be said that individuals born in different parts of the world within the same date range share a common generation position. Participation in the shared destiny of a historical and social unit is essential for sharing a generational position (Mannheim, 1952: 297-303).

Belonging to the same generation provides individuals with a common position in the social and historical process. When considering a specific generation, Mannheim highlights that the first thing that strikes one is the great similarity in the data that forms the consciousness of its members. The common position shared by individuals of the same generation limits them to a specific range of potential experiences and predisposes members of a generation to a particular characteristic way of thinking. Criticizing generational theories conceptualized with an entirely numerical spirit by dividing the historical process into specific periods, Mannheim highlights that the emergence or non-emergence of a new generational style in certain periods is dependent on the triggering effect of the social and cultural process (Mannheim, 1952: 290-310).

Generations are shaped by the norms of the culture which they are born into. Therefore, in order to better define a generation in all its aspects, it is first necessary to delve into a thorough examination of the history, civilization and culture in which it lives (Kırık and Köyüstü, 2018: 1498). In summary, a generation refers to a group of people who are born in a similar period, share similar life stages, are close in age, and are shaped by the events and trends that occur during a particular period. It can be stated that each generation has its own unique characteristics, value judgments and attitudes (Keleş, 2011: 131).

When the literature is examined, it can be seen that although the definitions have expanded over time, the conceptualization of the concept of generation remains consistent. The consistency in conceptualization refers to the definition of a generation as a group of individuals who are approximately the same age, experience and are influenced by the same significant historical events during the fundamental developmental stages of their lives. Generational differences cannot be solely attributed to an individual's age but rather to the shared influence of common experiences on the group (Costanza et al., 2012: 376-377).

Significant national and international events experienced by individuals, especially during their youth, contribute to the formation of a shared consciousness and a common perception of the outside world within a group. This shared situation has a significant impact on the attitudes, behaviors, and preferences that individuals hold in later stages of their lives. The fact that different generations have different values, perceptions, attitudes, and behaviors leads to differentiation between generations and can sometimes cause a phenomenon called generational conflict (Aka, 2018: 120).

1.2. Generations in Chronological Order

When the literature is examined, it is seen that generation studies generally focus on five generations. These generations are, chronologically: the Silent Generation, Baby Boomers, Generation X, Generation Y, and Generation Z. There is no consensus on the start and end dates of generations, and it is evident that generational dates cannot be clearly defined. As a matter of fact, different authors may point to different periods for the beginning and ending dates of a particular generation. The table below presents various perspectives on the start and end dates of the generations in question.

Table 1. Generations and Its Periods

Generation	Periods
The Silent Generation	*1900-1945 (Lancaster ve Stillman, 2009) *1925-1945 (Martin ve Tulgan, 2006) *1922-1943 (Zemke vd. 2000)
Baby Booming	*1946-1964 (Lancaster ve Stillman, 2009; Martin ve Tulgan, 2006; Keleş, 2011) *1943-1960 (Zemke vd. 2000)
The Generation X	*1965-1980 (Lancaster ve Stillman, 2009) *1965-1977 (Martin ve Tulgan, 2006) *1965-1979 (Keleş, 2011) *1960-1980 (Zemke vd. 2000)

The Generation Y	*1981-1999 (Lancaster ve Stillman, 2009) *1978-1989 (Martin ve Tulgan, 2006) *1980-1999 (Keleş, 2011) *1980-2000 (Zemke vd. 2000)
The Generation Z	*2000-2021 (Keleş, 2011) *2000 Sonrası (Aka, 2018) *1995 Sonrası (Nieżurawska, 2023)

When Table 1 is examined, it is seen that although there is no consensus on the start and end dates of the generations, approximately similar dates are indicated. On the other hand, the disagreements regarding dates are also reflected in generation themas. For instance, while Zemke et al. (2000: 3) defines the Silent Generation as "Veterans", Lancaster and Stillman (2009: 36) refers to the same generation as "Traditionalists" and Generation Y as "Millennials". On the other hand, Csobanka (2016: 66) defines the Baby Boomer Generation as "The Great Generation", Generation X as "Digital Immigrants", Generation Y as "Digital Natives", and Generation Z as "Facebook Nation" in his study. Another point to note about generational studies in the literature is that the characteristic features of generations are defined from the perspective of Western countries.

1.2.1. The Silent Generation

Significant events witnessed by individuals born during this period include World War I, the Great Depression, and World War II. The members of this generation witnessed quite negative events in the early stages of their lives. Perhaps due to the negative events they witnessed, it can be considered that individuals of this generation have high security concerns and a desire to avoid dangers (Egri and Ralston, 2004: 213).

Two world wars and a major economic crisis they experienced in between, as well as the scarcity of jobs, have pushed this generation to have various characteristics. Being frugal, saving for bad days, not wasting money, and being content with less are among the tendencies in question. In addition, the great events experienced made the individuals in this generation more religious, more hard-working and more patriotic. On the other hand, one of the most important concepts that define the individuals in question is loyalty. Members of this generation learned at an early age to put aside their individual needs and desires and work together for common goals. Finally, other characteristic features of individuals in this generation; It can be said that there is a strong belief in social institutions, loyalty to the chain of command and a readiness to follow the leader (Lancaster and Stillman, 2009: 40-41).

1.2.2. The Baby Booming Generation

This generation encompasses individuals born in the aftermath of World War II. During this period, there was a significant increase in birth rates. Indeed, the Baby Boom generation is defined by the size of its demographic structure and the special post-war conditions compared to the generations before and after it. During the period when this generation matured, among the prevailing conditions in Western industrialized countries were high national prosperity, emerging new media and communication networks, abundant consumption, and rapid social change. The large population of this generation, defined as the Baby Boom, has created new lifestyles and different tastes that also emphasize a rebellious youth culture (Katz, 2017: 14).

In the Baby Boom generation, children became the focal point of the family, and the youth stage for this generation is particularly a period of great optimism compared to their own parents. The end of the Second World War and advances in science, technology and health were among the factors that increased prosperity. Children enjoy affluent lives provided by single-earner fathers and stay-at-home mothers. On the other hand, it can be said that this generation is the first generation that was exposed to uniform mass messages while growing up through television. The occurrence of the Vietnam War, the widespread dissemination of freedom of expression among students, and anti-war movements are significant in the development of individuals belonging to this generation. Indeed, the perspective of this generation has been shaped by common experiences during their youth, like every generation. Finally, it can be said that individuals in the Baby Boom generation are extremely optimistic, individualistic, tend to reject authority, and attach great importance to instant personal satisfaction (Sandeem, 2008: 14-15).

1.2.3. The Generation X

Despite variations in dates found in the literature, it can generally be stated that this generation encompasses individuals born between 1960 and 1980. Contrary to the preceding Baby Boom generation, some researchers describe this generation as 'baby busters' due to their reluctance towards parenthood and lower fertility rates, which have led to a decline in birth rates (Bayramoğlu, 2018: 17). It can be said that individuals belonging to this generation were born into a rather unique environment. Despite a sharp decline in birth rates, unemployment rates are quite high, and existing jobs have been filled by individuals from the older generation (Kolnhofer-Derecskei et al., 2017: 108).

Indeed, individuals belonging to Generation X have grown up in financial, familial, and social insecurity. They have witnessed rapid change and great diversities. These factors have led to the establishment of individualism rather than collectivism among individuals. Therefore, they are more suspicious, less loyal and much more independent. The family structure of the period is an important factor in this regard. Unlike the Baby Boom generation, during Generation X's childhood, both parents worked or children were supported by a single parent due to increasing divorces. This has created a

generation of children who have had to fend for themselves and have therefore learned to be self-reliant and adapt to change. When the literature is generally evaluated, it can be seen that this generation is labeled as selfish and a negative image is created. However, it should not be forgotten that something that can be seen as selfish can also be considered independent and autonomous (Kraus, 2017: 63-64).

1.2.4. The Generation Y

Unlike Generation X, who are referred to as digital immigrants and started using the internet to some extent, Generation Y, or Millennials, has encountered the internet at a much younger age, and individuals in this group constitute the first digital citizens. In this generation, social relationships have for the first time been bifurcated into virtual and real (Csobanka, 2016: 66).

Additionally, known as the Millennial generation, this cohort is highly skilled in digital knowledge due to being born into the world of technology. This situation enables them to easily learn and use new tools and technologies developed in the field of information technology. It can be said that this generation easily embraces change, prefers living for the present rather than making long-term plans. In the virtual world they were born into, their social circles are also virtual, and they conduct their relationships through social media platforms. Individuals in this group find it easier to accept cultural differences. In this generation, where the family is not everything and takes a backseat, traditional values are fading away. The prominent values in this generation are seen to be success, career, and money. Indeed, individuals in Generation Y have learned that they can only make progress in a consumer society through these values (Andrea et al., 2016: 92-93).

1.2.5. The Generation Z

Generally, the term Generation Z is used for individuals born in 2000 and later. Also known as Post-Millennials, Generation Z is considered to be in a higher economic prosperity compared to previous generations, with higher education levels and greater ethnic and racial diversity. However, individuals in Generation Z have the lowest likelihood of experiencing job experience during their youth. They also have the highest likelihood of experiencing depression and anxiety disorders. The emergence of smartphones and social media alongside the lack of job experience are among the most notable factors shaping this generation (Schroth, 2019: 5-6). It is observed that a relatively negative image is portrayed in the literature about this generation.

Individuals in this generation are often perceived as a lazy generation that does not engage in any definite activity, exert physical or mental effort, create anything new, conform, or protest. Mobile devices and computers are their primary means of communication. Therefore, they feel blind without online connections and are also considered the most individualistic generation, where freedom is a crucial value. Among the priorities of this generation are being global, social, and technological. Generation Z values independence and openness to change because life is progressing rapidly, new

information is constantly emerging, and conditions are changing quickly. Many individuals in this generation feel safer and more confident in the virtual world than in the real world. As previously mentioned, social relationships have been bifurcated into virtual and real in Generation Y, while in this generation, virtual communication predominates. Therefore, there are many new relationships formed in virtual communities. Finally, members of this generation are global individuals thanks to the active lifestyles they lead on social media and the carefully crafted profiles they create with great care (Nieżurawska, 2023: 12-16).

2. METHODOLOGY

The YÖK Thesis Database constitutes an important source of data in our country, where master's, artistic proficiency, and doctoral theses are stored, allowing researchers to examine these studies. In this regard, a search was conducted on the YÖK Thesis Database using the keyword 'generation' specifically to explore master's and doctoral theses conducted in different fields of science. The concept and term 'generation' formed the dataset in this study. In the search conducted using the keyword 'generation,' a total of 875 records of postgraduate theses were found. Out of these 875 postgraduate theses, 320 were excluded from the dataset as they were found to be unrelated to the concept of 'generation' as used in the social sciences. These excluded theses used the term “generation” in contexts referring to items such as belts, biological cells, drugs, or different organisms, rather than in the sense of generational concepts. Therefore, within the scope of our study, we have excluded the usage of the term “generation” in biological, political, and similar contexts, as our focus lies on the social scientific concept of generation and its evaluation and analysis within different scientific explanations and perspectives. In the dataset we have created, which is associated with the social scientific concept of generation, a total of 555 postgraduate theses related to this term have been published between 1987 and 2023.

There are many algorithms available for extracting association rules. Among these, the most popular one is the Apriori algorithm, which performs association analysis on large datasets, revealing the relational dimensions and enabling knowledge discovery from big data. In this study, the Apriori algorithm will be used for text mining and text analyses. Text mining aims to analyze data and words in texts using various data mining algorithms, and to extract meaningful information from this data by deriving qualified insights. These high-quality insights are typically obtained through methods such as statistical pattern recognition, which identify patterns and trends. In text mining, high quality is achieved by bringing together relevant, related, and interesting information. "In text mining for information extraction, it is essential to analyze words individually and the relationships between words. This allows for the creation of information maps from the relationships between words (Emmanuel and oth., 2014). Text analyses are associated with information extraction and lexical analysis. These analyses involve data mining techniques such as pattern recognition, labeling/description, information extraction, linking, relationship analysis, visualization, and predictive analytics to observe word frequency distributions. In

this research, association analysis was conducted on the keywords of postgraduate theses to analyze the words used in conjunction with the term 'generation'.

3. FINDINGS

Figure 1. The Distribution of Postgraduate Theses on Generation by Year

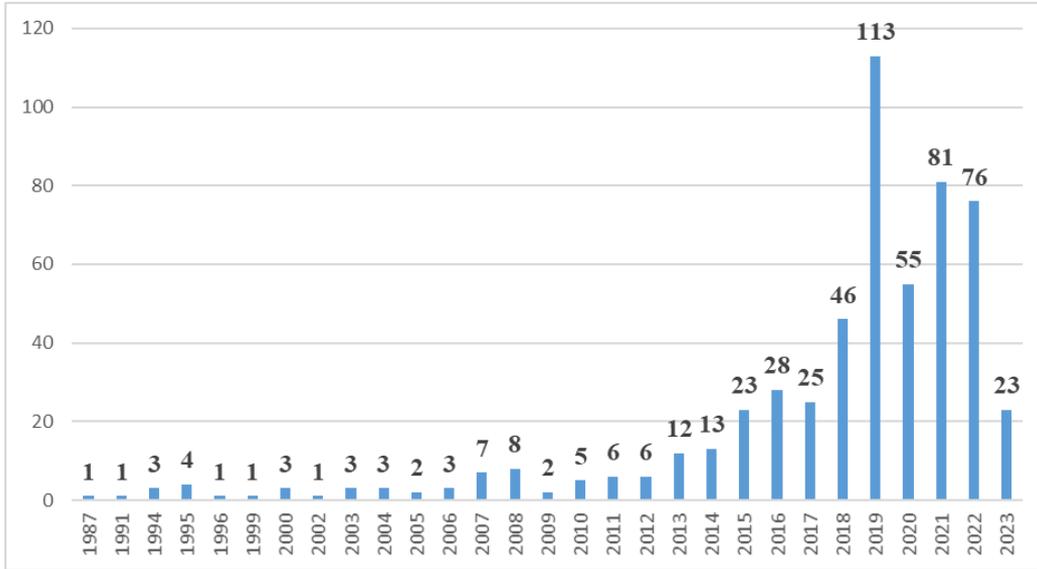


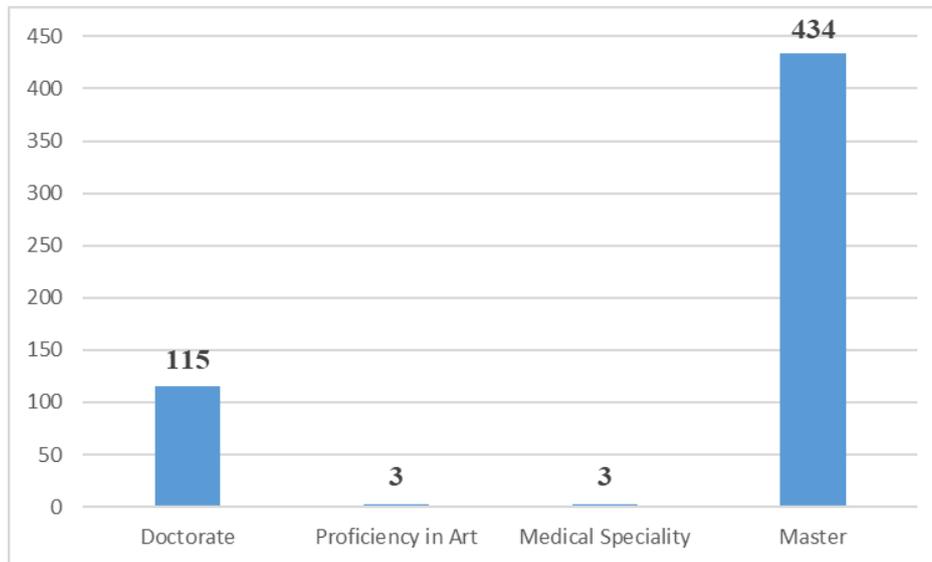
Figure 1 displays the number of theses conducted on the topic of 'generation' over the years. Accordingly, a significant increase in the number of theses related to 'generation' is observed from 1987 to 2023. It can be stated that academic interest in the concept of generation is equally significant in terms of being subject to study alongside other concepts and keywords. The increasing interest in this concept is influenced not only by temporal characteristics but also by the contribution of thesis students interested in research and thesis advisors who have done valuable work on this subject. As known, various socio-cultural elements play a significant role in determining a thesis topic, forming certain structural components. In this regard, in academic studies, the determination of the subject in theses involves various factors such as the life experience of the subject's determiner, the emergence of different views and approaches to the subject in international academic studies, and its impact or being influenced by socio-economic perspectives and certain elements specific to the period. Therefore, the researcher's transformation of an issue into a problem should not be considered in isolation from the above processes. It would be beneficial to keep this in mind particularly in academic studies/theses dealing with the concept of generation. Similar elements to this situation, such as differences in consumption perceptions between generations, political polarization, different attitudes and behaviors towards living conditions, etc., have become the focal points of research as points of differentiation in various social, cultural, and health issues.

The main parameters of this increase can be attributed to researchers' opportunities to evaluate current debates on generations, the evaluation and analysis of themes developed on the concept of

generation in previous periods, changes in consumption patterns since the 2000s, and the different attitudes and behaviors they have created among different generations. These factors can be seen as the focal point and increase of these related to generation during this period.

Despite the upward trend in the number of theses, fluctuations are observed in certain periods. For example, there was an increase in the number of theses in consecutive years in 1994, 2000, 2003, and 2004. However, it is noteworthy that only one thesis was written in 1996 and 1999. The highest number of theses is generally observed in recent years. In addition to the aforementioned socioeconomic and cultural elements, the parameters of change created by globalization around the world can also be expressed here as a factor in this increase. In particular, the years 2018, 2019, and 2021 are the periods with the highest total number of theses. Many theses have been written one after another in these years. 2020 and 2023: There seems to have been a decrease in the number of theses in 2020. However, an upward trend has been observed again in 2023. This situation may reflect the impact of extraordinary circumstances (e.g., COVID-19 pandemic) on academic work in 2020. The year 2022 is a relatively stagnant year in terms of the number of theses. This relative stagnation in the number of theses after the rapid increase in previous years may be due to changes in researchers' interest in a particular topic or other factors.

Figure 2. Distribution of Postgraduate Theses on Generation by Type



As seen in Figure 2, the number of master's theses among the specified types of postgraduate theses is significantly higher. This indicates that generational topics generally receive intense interest at the postgraduate education level. The number of doctoral theses is considerably lower compared to master's theses. This suggests that there are fewer individuals conducting in-depth research in this field and aiming for an academic career in this area. The numbers of other thesis types such as artistic proficiency and medical specialization are very low. This may indicate that generational topics are mainly of intense interest in social sciences and education, while being less explored in other fields. The

topic of generations allows for the writing of various theses at different academic levels, indicating both its broad scope and examination in different disciplines. These data indicate the need for more doctoral studies on generational topics and more research in specialized fields across different disciplines. It also suggests the possibility of deeper examination of intergenerational relationships and interactions.

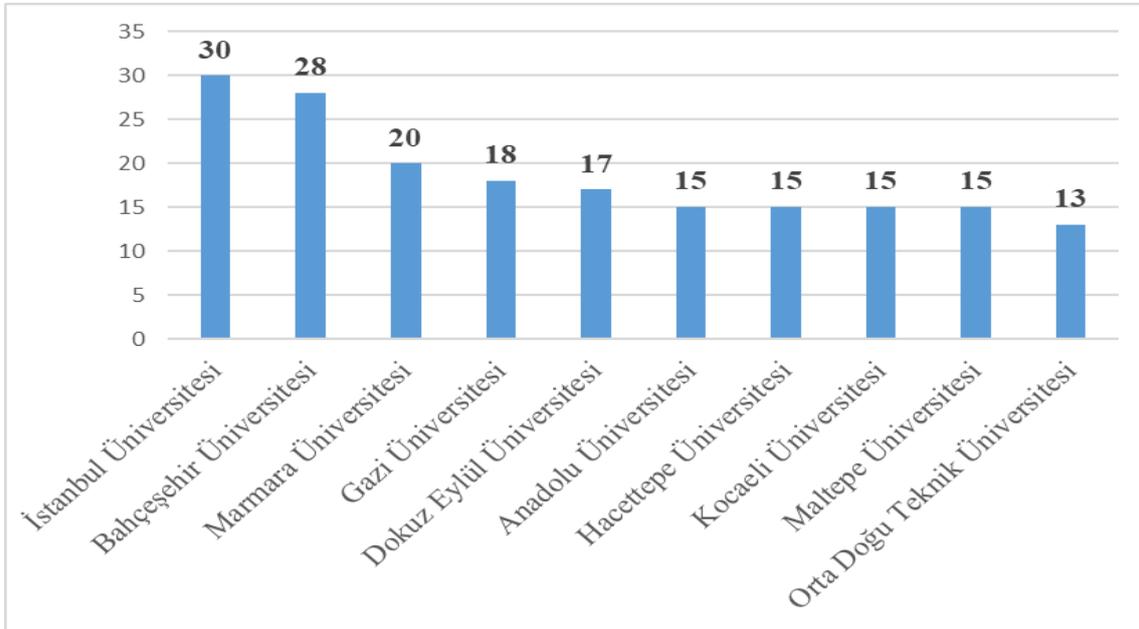
Figure 3. The Distribution of Postgraduate Theses on Generation by Academic Discipline



As seen in Figure 3, the concept of generation has been addressed in the context of different disciplines. In the evaluation of the subject within the framework of different disciplines, the orientations of existing academic research in these disciplines and the areas of interest of these disciplines can be expressed as a factor in addressing the subject. For example, in the field of health sciences, it is clear

that the importance of processes and universes of meaning that can extend from the health perception of individuals from different generations to their attitudes and behaviors towards health, and the changes they experience in the context of generation in the professional sense. Therefore, since elements such as intergenerational differences in tendencies, attitudes and behaviors, changes in perceptions, etc. are in the background in each discipline's approach to the concept of generation, it is inevitable that analyzes and evaluations of this concept should exist. In this context, it is considered normal for the concept of generation to become the focus of academics and thesis writers from different disciplines and to conduct research on this concept. The analysis and evaluation of the concept of generation from different disciplines allows for both the shaping of different identities of the concept and the concept to be addressed in a wide universe and range of meanings. Therefore, the interest of different disciplines in the concept can bring up the possibilities of focusing on the concept in a multidisciplinary way.

Figure 4. The Distribution of Postgraduate Theses on Generation by the Universities Where They Are Most Published



According to the data in Figure 4, İstanbul University has the highest number of postgraduate theses on generational topics, leading with 30 theses. This indicates the intensity of research conducted on the subject and highlights İstanbul University's academic interest in this field. Bahçeşehir University and Marmara University are the second and third universities with the most theses, with 28 and 20 theses respectively. The distribution of theses written on generational topics is quite diverse. For example, universities in major cities as well as Anatolian universities play an important role. This indicates that researchers and students are active in the field of generational studies across a wide geographical area. Some universities, while having produced only one or a few theses on generational topics, seem to focus on this subject. For instance, even newer universities like Sakarya University of Applied Sciences contribute academically in this field. These findings indicate that research on generational topics is

evenly distributed both in large, established universities and in smaller, more unique universities. This suggests that intergenerational relationships and dynamics receive broad academic interest in academic circles.

Table 2. The Most Published Fields of Postgraduate Theses on Generation

Subject	n
Sociology	170
Business Administration	134
Psychology	25
Education and Training	18
Public Relations	17
Labour Economics and Industrial Relations	15
Communication Sciences	13
Economics	11
Religion	10
Political Science	9

When looking at Table 2, it can be seen that the majority of theses on generations are concentrated in the field of sociology. This shows the importance of examining intergenerational relationships and dynamics from a sociological perspective. It means that there is a strong focus on how social structures and change processes are shaped by intergenerational interactions. Business administration comes in second. This means that it examines how businesses and organizations adapt to and are managed by different generations. Research in business administration focuses on topics such as intergenerational leadership, workplace communication, and motivation. It is also seen that there is a significant interest in psychology in quantitative terms. This reflects an interest in understanding the behaviors, attitudes, and values of different generations. It includes research on how psychological factors affect intergenerational differences. In addition, studies in education and education deal with the educational needs, learning styles, and adaptation of different generations to the education system. They focus on topics such as the role of technology in education. In addition, studies in public relations aim to understand marketing strategies, communication techniques, and brand loyalty for different generations. The field of Labor Economics and Industrial Relations can examine the role of different generations in the business world and workers' rights. Labor unions focus on issues such as workplace justice and occupational safety. This data shows how different academic disciplines address intergenerational relationships and offers a range of research with diverse scientific perspectives. This emphasizes the need for a multidisciplinary perspective on intergenerational interactions.

3.1. The Analysis of Keywords Used in Conjunction with the Keyword 'Generation'

The data set was read and keywords were taken for each publication. With the TRNLP library of the Python programming language, keywords were separated into their roots and single-character expressions such as "X" and "Z" were discarded. Again, with the help of Mlxtend Library belonging to

Python Programming language, Apriori association analysis algorithm was applied on the data and association rules were revealed.

Table 3. Apriori Association Analysis of Keywords in Postgraduate Theses Published on Generations

itemsets	Support
frozenset({'generation'})	0.69
frozenset({'social'})	0.13
frozenset({'behaviour'})	0.13
frozenset({'work'})	0.11
frozenset({'difference'})	0.11
frozenset({'generation', 'behaviour'})	0.11
frozenset({'generation', 'difference'})	0.10
frozenset({'generation', 'work'})	0.10
frozenset({'family'})	0.10
frozenset({'generation', 'social'})	0.09
frozenset({'media'})	0.09
frozenset({'conflict'})	0.08
frozenset({'generation', 'media'})	0.08
frozenset({'generation', 'conflict'})	0.08
frozenset({'organisational'})	0.08
frozenset({'transfer'})	0.08
frozenset({'Turkish'})	0.08
frozenset({'consumer'})	0.08
frozenset({'generation', 'organisational'})	0.07
frozenset({'social', 'media'})	0.07

First, association analysis was performed on words reduced to their stems using the Apriori algorithm. According to this analysis, as seen in Table 3, the probability of the word "generation" appearing in the examined theses was found to be 0.69 (support). Then, the most likely keywords to appear were "social", "behavior", "work" and "difference". In the 6th row, two words and one probability are given. This shows the probability of two words appearing together. Information is also given about the other words used most frequently with the word "generation" and the frequency of these words. Accordingly, words like "social", "behavior", "work", "difference", "family", "media", "conflict", "organizational", "transfer", "Turkish", "consumer" are frequently used together with the word "generation". This shows that these words are important topics in theses on generation. The words with the highest frequency with the word "generation" are "social", "behavior" and "work". This may show that there is a lot of research on intergenerational social relations, behavior patterns and interactions in working life. Words like "difference", "family", "media", "conflict", "organizational", "transfer", "Turkish" and "consumer" are also frequently used with the word "generation". This may also show that intergenerational interactions are examined in different areas (family relations, media consumption, organizational structures, etc.).

Table 4. Association Analysis of Keywords in Postgraduate Theses Published on Generations

antecedents	consequents	antecedent support	consequent support	support	confidence
Generation	Behaviour	0.69	0.13	0.11	0.15
Behaviour	Generation	0.13	0.69	0.11	0.83
Generation	Difference	0.69	0.11	0.10	0.15
Difference	Generation	0.11	0.69	0.10	0.95
Generation	Work	0.69	0.11	0.10	0.14
Work	Generation	0.11	0.69	0.10	0.88
Social	Generation	0.13	0.69	0.09	0.74
Generation	Social	0.69	0.13	0.09	0.14
Conflict	Generation	0.08	0.69	0.08	0.98
Generation	Media	0.69	0.09	0.08	0.12

The Mlxtend library was utilized to form association rules. Rules with occurrence probabilities less than 5% were eliminated during the creation of association rules. In Table 4, antecedents represent the first keyword observed, while consequents denote the keyword expected to occur after the first keyword. The support values of antecedents and consequents indicate the probability of these keywords occurring individually, while the support value alone represents the probability of these two keywords occurring together. The confidence value indicates the probability of the second keyword occurring when the first keyword appears. 'Antecedents' represent the precursor of a specific word, while 'consequents' denote the outcomes of this word. The 'Antecedent support' column indicates the support of precursor words, while the 'Consequent support' column shows the support of outcome words. The 'Support' column indicates the frequency of co-occurrence, while the 'Confidence' column measures the probability of one word occurring when another word is present. For example, when 'Generation' is the precursor and 'Behavior' is the consequent, it indicates the likelihood of 'Behavior' occurring when 'Generation' is present. In this case, 'Behavior' occurs alongside 'Generation' 83% of the time. Similarly, 'Behavior' precedes 'Generation' with a frequency of 15%.

Table 4 shows how frequently the word "Generation" appears with various concepts and the strength of the relationship between these concepts. For example, the word "Generation" appears with the word "Conflict" 98% of the time, while the word "Generation" appears with the word "Social" 74% of the time.

This analysis helps us understand in which contexts the concept of 'Generation' typically occurs and its relationship with other concepts. These findings show which themes stand out in research on generations and which concepts are considered together. The probability of the word "generation" appearing alone (antecedents) is 0.69; the probability of the word "behavior" appearing alone is 0.13. The probability of the words "generation" and "behavior" appearing together is 0.11. The probability of the word "behavior" appearing in a publication where the word "generation" appears is 0.15.

4. CONCLUSION

This study aims to reveal certain trends and changes by examining the distribution of theses on generation over time. Our findings indicate that intergenerational relationships and interactions are increasingly receiving more attention. Additionally, it underscores the growing research interest in this topic within the academic literature.

In recent years, there has been a significant increase in the number of theses on generation. This increasing trend indicates that the importance of intergenerational relationships is increasingly understood. However, it is also seen that research in this field shows periodic fluctuations and there is a certain decline in some years.

In light of these findings, we can make various recommendations for future researchers. First, there is a need for a more in-depth examination of intergenerational interactions and the characteristics of different generations. Additionally, it may be beneficial to conduct more research on the reasons behind the fluctuations in the number of theses in certain periods. However, it is crucial to develop applicable strategies for improving intergenerational communication and collaboration.

As a result, the importance of research on generation is increasing and studies in this field need to continue. It is expected that future research will contribute to the understanding of intergenerational relationships and a healthier social interaction.

In addition, according to our findings, the majority of postgraduate theses on the subject of generation were carried out at the master's level. In particular, there is a significant increase in theses made at the doctoral level in 2018 and later. This shows that the topic of generation is becoming increasingly interesting for researchers at the doctoral level. It is noteworthy that the number of theses at the level of proficiency in art and expertise in medicine is lower. This may indicate that the issue of generation has not yet been sufficiently researched in these fields or that there is less academic interest in this subject. When the distribution of postgraduate theses on the subject of generation is examined by type, it is seen that this subject is generally researched at the master's level, but research at the doctoral level is also increasing. These findings provide important clues to guide future research and increase academic interest in this field.

Another finding of the research is that the keyword "Generation" is associated with various fields such as behavior, difference, work, social relations, media and conflict. It is recommended that research on generations should focus on basic concepts such as behavior and diversity, as well as other areas such as work and social relations. Intergenerational communication and interaction must be considered in a broader context, particularly involving issues such as conflict and the media. In addition, more comprehensive programs and policies should be developed in business and organizations to understand and manage intergenerational interaction. Educational and training institutions should organize special courses and workshops to improve intergenerational communication.

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Hakem Değerlendirmesi: Dış bağımsız.

Çıkar Çatışması: Yazar çıkar çatışması bildirmemiştir.

Finansal Destek: Yazar bu çalışma için finansal destek almadığını beyan etmiştir.

Teşekkür: -

Peer-review: Externally peer-reviewed.

Conflict of Interest: The author has no conflict of interest to declare.

Grant Support: The author declared that this study has received no financial support.

Acknowledgement: -