

# Personality in Teams: A Bibliometric Analysis

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## ABSTRACT

*In today's competitive and fast-changing business world, teamwork can play a critical role in achieving agility and innovation. However, the right team configuration is required to achieve these results. In particular, the personalities of team members should be considered when designing the team. This study examines scientific research on "personality in teams" in the field of business and management through bibliometric analysis. In this context, data and visualizations were obtained from the Web of Science (WoS) database for 204 studies, such as collaboration networks, citation impact, focus topics, etc., which allow to see the general landscape and development trend of the research area. The analyses were not subject to historical restrictions, and all scientific research-oriented studies that addressed the dimension of personality in teams between 1982 and 2025 within the WoS database were analyzed. The results of the analysis showed that the United States of America is a pioneer in this field in terms of quality and quantity, and that institutions in China and the Netherlands have shown serious interest in this topic. The results also showed that there have been significant shifts in research focus and topics over time - from early explorations of team learning, psychological safety, and task automation to research emphasizing the role of personality in supporting creativity, innovation, and overall team performance, to the role of individual personality traits on team dynamics. The results of the study highlighted the growing importance of personality in teams in business and management research and provided suggestions for future research directions.*

**Key Words:** Personality, Teams, Bibliometric Analysis

**JEL Classification:** D23

## Takımlarda Kişilik: Bibliyometrik Analiz

### ÖZ

Günümüzün rekabetçi ve hızlı değişen iş dünyasında, ekip çalışması çevik ve yenilikçi bir doğaya sahip olmak için kritik rol oynayabilmektedir. Ancak bu sonuçlara ulaşabilmek uygun takım konfigürasyonunun sağlanmasını gerektirir. Bu noktada özellikle takım üyelerinin kişiliklerinin takım dizayn edilirken dikkate alınması gerekir. Bu çalışma da bibliyometrik analiz yöntemiyle iş ve yönetim alanındaki "takımlarda kişilik" alanında yapılan bilimsel araştırmaları incelemektedir. Bu kapsamda Web of Science (WoS) veri tabanından bulunan 204 çalışmaya yönelik iş birliği ağları, atıf etkisi, odak konular gibi Araştırma alanının genel manzarasını ve gelişme trendini görmeyi sağlayan veriler ve görseller elde edilmiştir. Analizler tarihsel kısıtlamaya tabi tutulmamış ve WoS veri tabanı kapsamında 1982 – 2025 yılları arasındaki takımlarda kişilik boyutunu ele alan tüm bilimsel araştırma odaklı çalışmalar incelenmiştir. Analiz sonuçları, Amerika Birleşik Devletleri'nin bu alanda nitelik ve nicelik açısından öncü olduğunu ve Çin ve Hollanda'da kurumlarının bu konuya ciddi eğilim gösterdiği bulgulanmıştır. Ayrıca bulgular, zaman içerisinde araştırmaların odaklandığı konu ve temalarda önemli değişimler olduğunu göstermiştir- takım öğrenimi, psikolojik güvenlik ve görev otomasyonunun erken keşiflerinden yaratıcılığı, yeniliği ve genel takım performansını desteklemede kişiliğin rolünü vurgulayan araştırmalara ve ardından bireysel kişilik özelliklerinin takım dinamikleri

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üzerindeki rolüne. Çalışmanın bulguları, iş ve yönetim araştırmalarında takımlardaki kişiliğin artan önemini vurgulamakta ve gelecekteki araştırma yönleri için öneriler sunmaktadır.

**Anahtar Kelimeler:** Kişilik, Takımlar, Bibliyometrik Analiz

**JEL Sınıflandırması:** D23

## INTRODUCTION

Today, due to globalization, technological developments and their impact on industries, many sectors and work areas have gained a more dynamic and competitive outlook. From this point of view, it has become a necessity to keep up with the changes with an agile structure and to carry out innovative activities to have a sustainable nature. It has been found that organizing teams offers advantages to companies in these areas, and it has been recommended that organizations should benefit from the synergies arising from group work beyond individual talents (West, 2000). In other words, the main reason for using teams is that the optimal combination of members' skills, knowledge, experience, and even personalities is believed to contribute more to organizational success than individual efforts. In fact, it is possible to mention that teams are used more in today's organizations compared to the past periods (Driskell et al, 2006). In particular, online technologies developed after the millennium allowed organizations to use virtual teams that are geographically distant from each other (Costa et al., 2024). Later, with the spread of digital transformation and the impact of challenging social conditions such as pandemics, organizations began to benefit more from hybrid teams with mixed structures and dynamics rather than traditional or virtual teams (Handke et al., 2024). In addition, artificial intelligence (AI) technologies or robots, which are on the agenda today, have started to be integrated into teams (Georganta and Ulfert, 2024).

These small units used in organizations have been found to have benefits such as providing flexibility and agility to the organization, solving complex problems and playing a critical role in innovation processes (Hackman 1987; Curral et al, 2001). Teams have also been found to be useful in meeting social needs within the organization. In this regard, they have been found to increase the socialization of organizational members and positively affect their satisfaction (Allen and Hecht, 2004). Given these multifaceted benefits, scholars have focused on understanding what makes teams effective and how their internal dynamics can be optimized.

One of the most widely used frameworks for explaining team effectiveness is the IPO (Input-Process-Output) model, which has been extensively adopted and refined by researchers. In this model, inputs refer to the factors that influence teams to achieve effective results. These inputs can be individual (knowledge, skills, personality), team (i.e. task type, team composition), organizational or contextual (structure, resources, industry) (Costa, 2024). The main role of process factors in the model refers to the activities and interactions at the team level that transform these inputs into the desired outputs. In this regard, it refers to mediating factors such as team communication, team cohesion, participative safety. The last part of the model consists of output, which are the results that the team intends to achieve (i.e. performance, innovation, satisfaction).

Among the various input factors, team composition has been shown to exert a significant impact on team performance (Kozlowski & Bell, 2003). Team composition refers to the collective attributes of team members, encompassing demographic (e.g. age, gender), cognitive (e.g., skills and expertise) and psychological (e.g., personality) characteristics. Research highlights that among these attributes, personality plays a critical role in reaching positive outcomes. This is primarily because personality factors reflect the character, thoughts, feelings, and even behaviors of team members. This is because personality factors are not only task-oriented in terms of team dynamics, but also a variable that influences the social and psychological dynamics of the team (Lepine et al., 2011). For instance, a team composed of members with high levels of conscientiousness and agreeableness may foster a collaborative and performative climate, whereas high levels of neuroticism and low extraversion may contribute to dysfunctional team dynamics.

Despite the growing recognition that personality configuration is an important determinant of team success, research in this area has mostly focused on either single traits (conscientiousness) or isolated contexts (virtual teams). In this sense, there has not yet been a comprehensive mapping of the landscape of research on personality in teams. There has been a considerable amount of research on the personality traits of work teams. However, a systematic bibliometric study that examines the role of personality in teams in terms of the evolution of these studies over time with regard to institutions, authors, and conceptual themes is lacking. It is important to understand how the field has changed and evolved over time, to identify the dominant theoretical currents, and to infer which parts of the field have conceptual gaps in order to understand the evolutionary dynamics of the field. In addition, such a study will also be able to make inferences about the development trend and future course of the field. In this sense, the present study used bibliometric analysis to systematically map the intellectual structure and research trends on personality dynamics in teams.

In light of new technological and social dynamics, the nature of work teams has become colorful and dynamic in terms of diversity. Moreover, in a business context where hybrid and trans-disciplinary teams are increasingly used for innovation and supported by AI tools, the study of the evolution of the impact of the personality composition of team members emerges as an important and noteworthy effort. To this end, the present study not only explores key theoretical themes and trends in the field of team personality but also offers deep-level practical implications for the formation of effective work teams. In line with these objectives, the following research questions are addressed:

- What are the predominant trends in research related to personality in teams over time?
- Who are the most influential researchers in this field?
- Which universities and countries contribute the most to personality research in team context?

- What are the dominant collaboration networks among researchers and institutions?
- How have research topics and keyword trends evolved in this area?

By posing these inquiries, the present study makes several contributions to the extant literature. The present study is the first one to conduct a bibliometric synthesis of all the scientific studies on personality in teams in the last 45 years. In this context, the scattered and multidisciplinary studies conducted under the umbrella of the research field of personality in work teams are brought into a holistic structure. Thus, the historical evolution and future directions of research in this field are examined. In this respect, the current research provides both a theoretical contribution to teamwork literature and constructive suggestions to practitioners for team building in the context of personality.

### **PERSONALITY IN TEAMS**

In today's dynamic and global environment, organizations are expected to adapt to the new rules of dynamic and global environments. Competition is fierce and innovation is essential in many business contexts. In this respect, organizations are advised to use teams to structure work, as a group of people can achieve better results than an individual, meeting the needs of employees and increasing productivity at the same time. While there is no universally accepted definition of teams, scholars generally agree on certain common characteristics, such as a shared vision, mutual responsibility, and interdependence. Based on these attributes, teams can be defined as two or more individuals working together to achieve a common goal using complementary skills and sharing responsibility for teamwork results (Katzenbach and Smith, 1992).

In organizational contexts, teams can exert a multitude of reciprocal influences. Research shows that teams can provide greater flexibility in decision making, adaptation to change, organizational development processes and productivity than the individuals who work in same conditions (Hackman, 1987; West, 2012; George and Jones, 2005). On the other hand, teamwork can sometimes be counterproductive within organizations (Dumaine, 1994; Newell et al, 2009). In fact, according to Clegg and his associates (2009), teamwork can be challenging for dealing with interpersonal psychological issues and may require a significant amount of time and resources. Furthermore, issues like group think, conformity and group polarization can also cause teams to make damaging decisions. It is therefore crucial to effectively manage teams within the organization so that the team-based work can contribute to organizational performance (West et al., 2004). In this regard, scholars emphasize the importance of team style, structure, and composition in achieving desired organizational outcomes (Dumaine, 1994; Keck, 1997; Halfhill et al., 2005).

Diversity is described as 'the distribution of personal characteristics among the interdependent members of a work unit' (Jackson, Joshi and Erhardt, 2003:802). It includes differences in age, gender, ethnicity, knowledge, skills and personality. Researchers often categorize these attributes into surface-level diversity (e.g., demographic factors like age or gender) and deep-level diversity (e.g., knowledge,

skills, personality traits) (Harrison et al., 1998; Phillips & Loyd, 2006). While surface-level diversity shapes initial perceptions, deep-level diversity—particularly personality traits—exerts a more profound influence on long-term team dynamics and outcomes.

This research focuses on the role of personality within teams, a critical dimension of deep-level diversity. Personality reflects the ways in which individuals think, feel, behave and respond to their social environment (Funder, 2001). In other words, individual differences in behavior, thoughts and emotions are discussed within the concept of personality traits. Numerous frameworks exist for classifying personality traits, yet certain models have gained prominence in organizational research. The most prominent and applied one is Costa and McCrae's 'big five' model of personality factors (openness to experience, conscientiousness, extraversion, agreeableness and neuroticism) (Costa, McCrae, 1988). On the other hand, there is a dark triad model that includes (Narcissism, Machiavellianism and Psychopathy) socially aversive traits of personality (Lee and Ashton, 2014). Furthermore, individual differences in core self-evaluations (Judge et al., 2003), emotional intelligence (Petrides, 2016), and proactive personality (Zhang et al., 2021) have also been explored in organizational personality research.

However, the operating personality in team literature remains complex. Most studies examine either the mean levels (e.g., average conscientiousness) or variability (e.g., diversity in extraversion) of traits across teams. In addition, research consistently indicates that not all personality traits have the same positive or equal impact on team functioning. For instance, conscientiousness (Mohammed and Angel, 2003) has been found to be positively related to team performance. Furthermore, Barrick et al. (1998) discovered a positive correlation between agreeableness and team cohesion, suggesting that the former fosters increased harmony and reduced conflict within the team. This finding renders agreeableness particularly valuable in interdependent teams (Barrick et al., 1998). When it comes to openness to new experiences, the impact of this characteristic can depend heavily on the context in which the team operates. As an example, teams focused on tasks that require creativity, and innovation may depend critically on the openness of members.

On the other hand, variability exerts a substantial influence on team dynamics. Specifically, studies have identified a pattern wherein variability in the extraversion traits of team members contributes more to team performance than the presence of high average values in these traits. A notable rationale for these observations is the prevalence of extroverted individuals and its implications for the psychological safety climate of the team (Neuman et al., 1999; Mohammed & Angel, 2003). Conversely, variability in conscientiousness trait is not recommended by researchers as it may lead to the possibility of not reaching a sufficient level in the task focus of the team (Peeters et al., 2006; Bechtoldt et al., 2007). To this end, the extant literature indicates that the average or variability level of specific personality traits is effective in shaping team dynamics and the success of their

outcomes. Therefore, personality traits should be considered when making decisions related to team formation.

Consequently, despite the proliferation of research on teams and personality, there are unaddressed areas in the literature (Bechtoldt et al. 2007; Neuman et al. 1999). Specifically, there is a paucity of bibliometric studies that systematically map the intellectual landscape of personality traits and their effects in work teams. The present study endeavors to address this absence by employing bibliometric analysis to examine extant scientific research in existing literature. In this respect, the study aims to reveal the trends, focal topics, leading countries and organizations, and their cooperation networks in the literature with visualization. The study will also reveal the overarching picture of the evolution of the field. By offering a comprehensive examination of the conceptual framework, developmental trajectory, and prospects of research on "personality in teams," this study seeks to make a substantial contribution to the scientific advancement of the field.

### **METHODOLOGY**

The purpose of this study is to examine the research landscape on personality in teams in the field of business and management. In line with this purpose and to address the aforementioned research questions, a bibliometric analysis was conducted by using data retrieved from the WoS database. The analysis examined key bibliometric indicators such as publication volume over time, citation patterns, co-authorship networks, institutional collaborations, and keyword evolution. VoSviewer software was utilized to visualize and interpret these trends.

The analysis focuses on research published between 1982 and 2025, sourced from the WoS database, which is widely recognized for its high-impact and peer-reviewed scholarly content. In this way, it was possible to make a comprehensive generalization for the relevant literature and to create a holistic perception (Van Nunen et al., 2018).

Bibliometric analysis method was chosen to discover and analyze the data set consisting of scientific studies created in the focused research area with a scientific research methodology (Donthu et al. 2021). Accordingly, the present study undertakes a comprehensive analysis of the numerical and qualitative characteristics of publications in the extant literature on personality in teams, with a focus on bibliometric analysis. This study unveils the prevailing global research trends in this domain across the micro (researchers), meso (institutions), and macro (countries) levels (Alsharif et al., 2017). Bibliometric analysis basically consists of two dimensions. The first dimension is the performance analysis dimension that enables to analyze the contributions of researchers, organizations, journals, countries and publishers by using metrics related to publications and citations related to scientific research on the subject. The second dimension entails the visualization of dynamics associated with research in pertinent literature. This process is undertaken within the purview of the present research, which is designated as "scientific mapping." (Abdullah, 2021; Açıkgöz, 2024). In this context, the objective was to understand how the personality factor is addressed in academic literature on business and management in the context of teamwork. To

this end, an analysis of current research was conducted from the perspectives of such dimensions.

In the current study, the fundamental stages of bibliometric analysis consist of analyzing and visualizing the data obtained from the WOS database through the VOSviewer program. The creation of a data set that would enable bibliometric analysis in a large database such as WoS was imperative for the realization of the study. This database includes high quality scientific research in the context of business and management, which constitutes the main scope of the study. The core reason for choosing the WoS database is that it contains high-impact potential and reliable research, as well as advanced search indicators and control mechanisms for advanced data analysis.

Moreover, a holistic view of the research literature on the personality in teams of the research was obtained by analyzing the data set created through the VOSviewer program. It is important that the program is effortless to access and easy to use. The software provides visualization, mapping, and multidimensional analysis tailored to the research purpose. This capability made it possible to create a comprehensive picture with the generated data and shapes, allowing the research to be conducted effectively. (Dirik, 2023; Seyhan et al, 2024). The software facilitates the analysis of co-authorship and collaboration networks, enabling the identification of prominent researchers and institutions, particularly those that deviate from the norm. Furthermore, it enables the analysis of citations and co-citations, facilitating the identification of highly cited works and the establishment of interconnections among studies. Finally, the capability of keyword co-occurrence analysis enables the tracking of thematic trends and the identification of emerging topics. To this end, the network visualizations generated by VOSviewer provide insights into research trends, intellectual structures, and author collaborations in the field of personality in teams. Additionally, descriptive statistics such as publication trends over time, country-wise research output, and citation impact were examined to contextualize the findings.

The topic search method was used to analyze the current study. This method allows searching for titles, abstracts, and keywords related to personality in teams, which is the focus of the research. In addition, the topic search method is one of the most preferred search methods for studies based on bibliometric analysis (Özçetin and Mutlu, 2024). Due to the nature of bibliometric analysis, the dataset obtained in this study was generated using a topic-based keyword search strategy, yet all included studies were manually reviewed to ensure content alignment. At this point, in addition to keyword matching, each article included in the review was examined for its conceptual compatibility with the topic of personality in teams. At this point we focused on studies with a clear focus or findings on personality factors in the team context, and 2202 studies that did not meet these criteria were not included in the analysis process. In this context, a basic content review was carried out to increase the conceptual integrity of the data set. It should be noted, however, that because of the bibliometric nature of this study, it is beyond the scope of the research to provide an in-depth qualitative synthesis of article content. Instead, the

present study aims to provide a comprehensive overview of the scholarly landscape within the topic of team personality in the broader business and management studies (Donthu et al., 2021; Seyhan et al., 2024). It is noteworthy that the keywords utilized in this study are derived from those employed in a preceding comprehensive study (Mutlu, 2017). The keywords used in the subject search method are presented below:

**Team-based Keywords:** "team," "teams," "group," "groups," "team composition"  
**Personality-based Keywords:** "personality," "traits," "member characteristics," "Big Five," "Dark Triad," "Five Factors," "deep level," "agreeableness," "openness to experience," "conscientiousness," "neuroticism," "extraversion," "narcissism," "psychopathy," and "Machiavellianism."

As a result of the keyword searches performed within the scope of the search, studies that do not fit the research focus may be found. In accordance with the criteria selected and searched within the scope of the research, a total of 2206 research-based studies were obtained in the WoS database under the umbrella of business and management research. As a matter of fact, the 2206 studies conducted with the topic search method described above were manually reviewed in detail and reduced to 204 studies. It is imperative to note that the exclusion included non-research book chapters, reviews, editorial material, corrections, and publications that have been withdrawn. In order to effectively control the suitability of the results obtained for the scope of the research, only research-oriented studies written in English and Turkish were examined. In this context, all 204 eligible studies were written in English. At this point, English is the most widely used language in academic publishing, providing a broad international reach and perspective.

No historical constraints were used in the research, and all research-oriented studies between 1982 and 2025 that were allowed by the WoS database were manually examined and checked one by one. Table 2 shows the number of publications related to personality in teams in the context of business and management research between the specified years.

**Table 1:** Number of Research-Based Publications by Years in the Field of "Personality in Teams"

Year	Number Of Publications	Year	Number Of Publications	Year	Number Of Publications
2025	-	2010	8	1995	1
2024	12	2009	6	1994	-
2023	6	2008	9	1993	1
2022	6	2007	6	1992	2
2021	18	2006	3	1991	-
2020	13	2005	6	1990	1
2019	9	2004	4	1989	-
2018	5	2003	6	1988	-
2017	7	2002	8	1987	-
2016	7	2001	2	1986	1
2015	6	2000	2	1985	-



2014	7	1999	3	1984	-
2013	11	1998	3	1982	1
2012	11	1997	6		
2011	5	1996	2		

As it can be seen in Table 1, the distribution of publications related to the subject of personality in teams in the context of business and management research can be considered as three different periods. The first period, before 2000, corresponds to very few publications in the 1980's and an average of two publications per year in the 1990's. In the second period, between 2000 and 2010, it is understood that an average of six publications per year were made, with a significant increase. In the third and last period, 2011-2025, it is observed that the number of annual publications has again increased significantly, and the average annual number of publications has reached nine. In this case, it can be said that the rapid increase in personality related research on teams that started in the 1990's has followed an upward trend in the millennium period and beyond. This underscores the significance and prevalence of research on personality in teams within the context of teamwork, a subject that has garnered considerable attention from scholars in the fields of business and management.

### FINDINGS

Personality dynamics in the context of teamwork is one of the salient and researched topics in the context of business and management research. In this context, 2206 research-oriented studies published in all the Social Sciences Citation Index and Science Citation Index-Expanded indexes in the field of business and management since 1982 were examined in detail with a meticulous attitude. 204 research articles that focus directly on personality in teams were selected from this universe and subjected to bibliometric analysis. Table 2 presents the distribution of these publications by type.

**Table 2:** Number of Publications by Publication Types

Broadcast Type	Number Of Publications
Articles (Research Based)	190
Proceeding Papers (Research Based)	9
Early Access Articles (Research Based)	5

### Country Based Analyses

The number of publications by countries of the studies on personality in teams in the organizational context was also revealed within the scope of the study. In this context, the United States (USA) has come to the fore as the country that produces the most research-based publications on the subject. This country was followed by the Republic of China and the Netherlands. When the citation scores are examined on a country basis in direct proportion to this finding, the USA again ranked first as the most cited country. It was observed that this time the Netherlands was in the second place and the Republic of China was in the third place. At this point, it is worth noting that the ratios of the Republic of China and the Netherlands

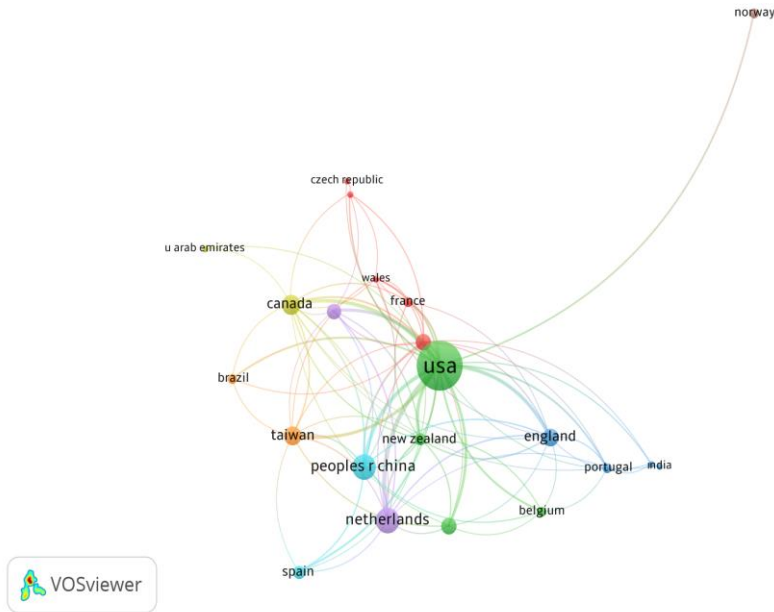
are very close in both country-based analyses. Table 3 reflects the number of publications by country.

**Table 3:** Number of Publications by Country

Country	Number Of Publications	Country	Number Of Publications
USA	123	France	2
People's R. of China	23	Belgium	2
Netherlands	22	Portugal	2
Canada	13	Brazil	2
Taiwan	11	Norway	2
England	9	Wales	1
Australia	8	Singapore	1
Germany	8	19) Israel	1
South Korea	7	20) India	1
Spain	5	Czech Republic	1
New Zealand	4	United Arab Emirates	1
		Thailand	1

In addition to analyzing the publications of the countries, the number of citations and citation link strengths were also identified through the VOSviewer program. This analysis was performed on the basis of at least one publication and at least one citation criterion, consistent with other parts of the study, and a network map was obtained within this framework. The analysis identified eight clusters and 90 connections among 22 interconnected units, resulting in an overall connection strength of 595. At this point, the country with the highest number of citations and the highest total link strength was USA (12992 citations and 455 link strength scores) in direct proportion to the number of publications. This country was followed by Netherlands (1169 & 118) and People's Republic of China (1009 & 91) in terms of citation numbers and total link strength, respectively. Once again, it is worth noting that the scores of these two countries are close to each other.

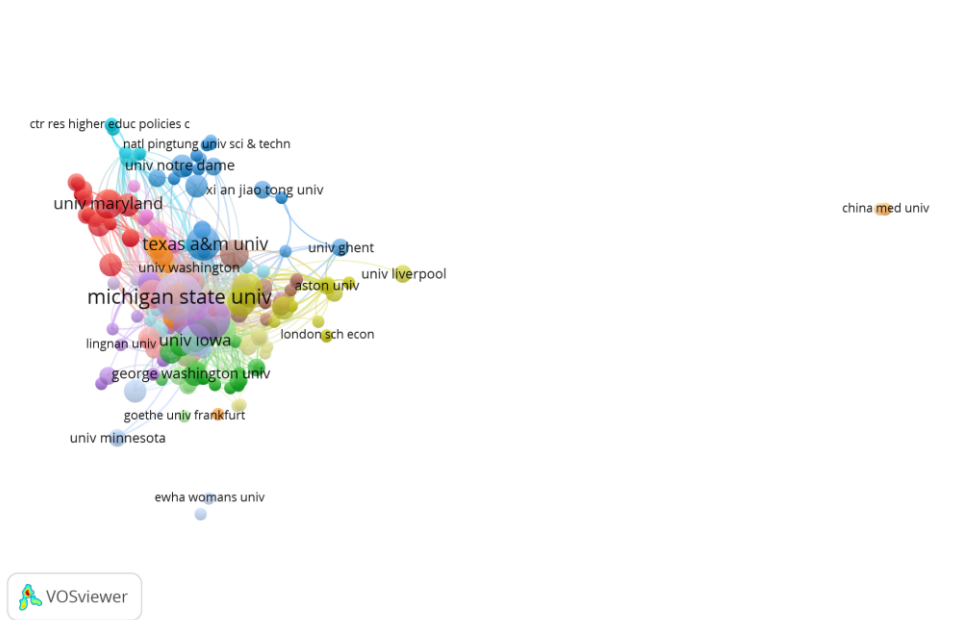
Based on the findings presented above, VOSviewer created figure 1 that shows the level of cooperation of the most productive countries with each other in the research on personality in teams. When the figure is examined, it is observed that the USA clearly dominates the field research and is in the mechanism of the network. The countries which USA cooperates with the most are the Netherlands, the People's Republic of China and Canada. Zheng et al. (2016) suggest that cooperating countries tend to be geographically related. However, at least the relationships on the map within the scope of personality in teams do not support this tendency.

**Figure 1:** Citation Links of Countries

### Corporate Analyses

Following an analysis of the data from a variety of countries, the next phase of analysis involved a focus on institutional contexts. At this point, the initial focus was on producing the citation network map of publications disseminated within institutions (figure 2), which was again achieved through the utilization of the VOSviewer program. The analysis was conducted across a total of 257 observation units, subdivided into 20 distinct clusters and encompassing 2438 links. These units were selected based on the criterion of having published at least 1 scholarly work and having received at least one citation. This approach was adopted with the objective of ensuring both consistency and inclusiveness within the research framework. In the light of the data produced as a result of the analysis, Michigan State University (14), Penn State University (11) and Texas A&M University (7) were the educational institutions that produced the most publications on "personality and teams", respectively. Again, Michigan State University with 2149 citations and Penn State University with 2083 citations are in the first two positions to be included in the citation analysis on an institutional basis. However, this time the University of Iowa is in the third place. Finally, when the link strengths are analyzed on the basis of educational institutions, University Iowa, Michigan State University and Penn State University share the first three ranks, respectively. Ultimately, although it is underlined that all the educational institutions published in the field of personality in teams are of USA origin, it has been determined that the total connection power of these institutions is 3327.

Figure 2: Citation Bonds of Institutions



In addition, the number of research-based publications according to the publishing organizations within the scope of the study was calculated and shown in Table 4.

Table 4: Organizations with the highest number of broadcasters

Publishers	Number Of Publications	Publishers	Number Of Publications
Sage.	48	Academic Journals	1
Wiley	31	Cambridge Univ. Press	1
Amer. -Psych. Assoc.	25	Inst. Surg. Res. Male Sci.	1
elsevier	22	Inderscience Enterprise	1
Emerald	19	Kluwer Acad.– Hum. Sci.	1
Springer Nature.	13	Nomos Verlag. Mbh & Co Kg	1
Taylor & Francis	11	-Plenum	1
Academy of Management	10	Social Inform. Male	1

Co-author Analysis

According to the co-authorship analysis of the authors, a network map was created by determining at least one publication and at least one citation criteria in order to reveal the authors with the most network between them. This analysis also provides information about the authors who produce the most publications and the authors who receive the most citations in the field. It was found that there are 428 names, 20 clusters and a total of 5631 connections among the authors with the highest number of connections between them, which are combined in a single

cluster. The total link strength between researchers was found to be 6788. In addition, the authors who produced the most publications in the field of personality in teams were Daniel R. Ilgen, John R. Hollenbeck and Jeffery A. Lepine, respectively. The most cited authors were Greg L. Stewart with 1498 citations, Daniel R. Ilgen with 1190 citations and Eduardo Salas, Dana E. Sims and C. Shawn Burke with 1112 citations

**Figure 3:** Collaborations between Field Author

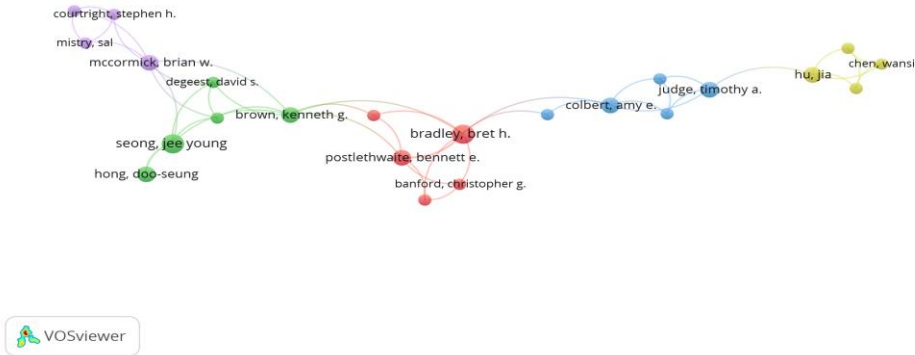


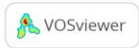
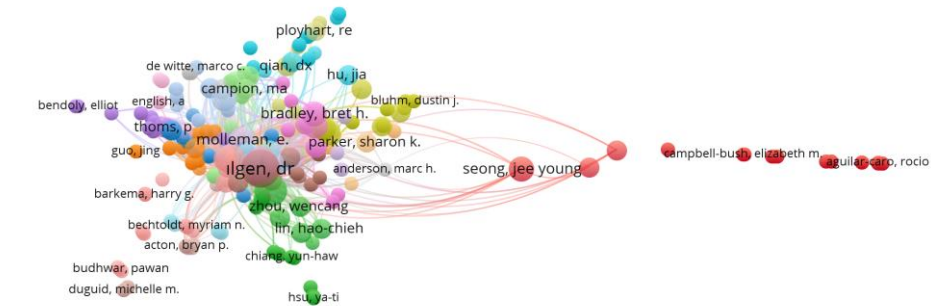
Figure 3 illustrates that 23 academicians in literature have organized themselves into five distinct groups, each characterized by strong internal ties. The remarkable point is that there is no prominent cooperation between these clusters. This may indicate that team members do not vary much in collaborative research studies, and in this sense, diversity cannot be used sufficiently in terms of knowledge and skills. As an explanatory reason for this situation, it can be shown that there are no serious organizations such as congresses, workshops, etc. that will bring together academicians working in the field of personality in teams or more generally in the field of “teams”.

### Citation Analysis of the Authors

To ascertain the citation networks between the authors working on personality dynamics in team context, at least one publication and at minimum one citation were analyzed, and a network map of the authors' co-citations was derived through the VOSviewer program. A total of 20 clusters and 5631 connections were observed in the analysis made over 428 units. In addition, the total connective power of the authors who published in the relevant field was found to be 6788. As previously indicated, the most frequently cited authors are Greg L. Stewart, with 1498 citations; Daniel R. Ilgen, with 1190 citations; and Eduardo Salas, Dana E. Sims, and C. Shawn Burke, with 1112 citations. The first two of these three authors, Greg L. Stewart and Daniel R. Ilgen, respectively, are the first and third most cited authors in terms of total link strength. The second place is occupied by Murray R.

Barrick, a different name in terms of citation rankings but one of the pioneers in the field.

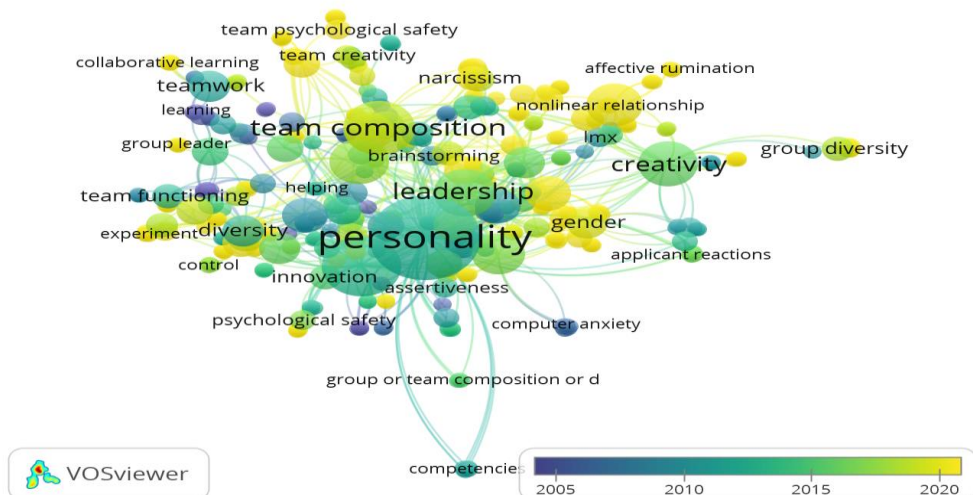
**Figure 4:** Citation Links of Authors



### Keyword Analysis

The application of the VOSviewer program to the analysis of studies on personality in teams reveals the following frequently used keywords: "personality" (33 repetitions), "teams" (18 repetitions), "team composition" (15 repetitions), "leadership" (11 repetitions), and "team performance" (10 repetitions).

**Figure 5:** Most Frequently Used Keyword Links



The strongest expressions in terms of total connection strength were personality, teams, and team composition. These statements are directly related to the subject of personality in teams in the focus of the current research. Thus, a robust correlation can be observed between the publications that were meticulously selected for analysis and the findings concerning the keywords employed in these publications. A total of 33 clusters, 1227 connections and 1282 total connection strengths were identified as a result of the analysis conducted with 380 observation units that were seen at least once and had connections between them.

In addition, considering the timeline given in the lower right corner of the figure, it is understood that there are changes in the topics focused on at the beginning of the 2000s and after the first decade, and then again after the second decade. Accordingly, in the early 2000's, team learning, psychological safety and task autonomy came to the forefront in the studies on personality in team environment. Then, in the 2010's, research on business and management directly focuses on areas such as creativity, innovation and personality in teams. In 2020 and beyond, this situation is changing again, focusing on individual personality factors such as narcissism, openness to experience, proactive personality in teams, as well as gender, team creativity, team-specific psychological safety and affective rumination.

## **DISCUSSION**

This study underscores the mounting importance of personality dimension in teams in business and management research, charting its academic evolution through bibliometric analysis. Personality has been identified as a significant factor influencing team dynamics within organizational settings. As discussed in the literature review, numerous researchers have observed that teams with optimal personality composition are conducive to achieving positive outcomes in various study settings.

The results underline that research on personality in teams started in the 1980's and has increased rapidly since the 2000's. The studies conducted in these years emphasize the positive effect of the factors Conscientiousness and Agreeableness, while the factor Extraversion should show a variable distribution (Peeters et al, 2006).

A country-based analysis reveals the preeminence of the USA in terms of publication volume and citation rates. The primary catalyst for this pioneering initiative is the significant emphasis placed on the field of psychology within organizational contexts on a national scale, thereby underscoring the pivotal role of the investment made. In this context, it is noteworthy that institutions such as Michigan State University and Penn State University have made significant contributions to the field. Conversely, the mounting interest and contributions of institutions in China and the Netherlands to research in this domain not only underscore the geographical dispersal of novel knowledge production but also reflect a deliberate integration into global research networks. This evolution entails a shift from a Western-centered approach to theory development, thereby altering the field's prevailing paradigm and fostering epistemological diversification and

enrichment through cultural contributions from diverse backgrounds. This shift has the potential to diminish Western countries' dominance in the field to a certain extent.

The analysis reveals three distinct periods, both in terms of the number of publications and the topics researched: 2000-2010, 2010-2020, and post-2020. From the 1980's through the millennium, studies on personality in teams remained underdeveloped, with the extant research limited to a few studies that would later serve as the foundation for subsequent research. Concurrently with these pioneering studies on the use of the "Big Five" model in teams, has been the subject of extensive investigation in the 2000s. Furthermore, the distribution of these five personality factors according to their mean or variability levels within the team, as well as the effect on team processes and outcomes, has exhibited a discernible trend (Peeters et al., 2006). In parallel with these findings, it is noteworthy that during this period, Amy Edmondson's seminal work on the concept of "psychological safety" in teams, published in 1999, led to a surge in research on team autonomy and learning.

In the subsequent decade, spanning from 2010 to 2020, there was a discernible shift in organizational understanding and appreciation for the significance of innovation. This paradigm shift was accompanied by a notable dissemination of knowledge in the field, evidenced by a growing body of research emphasizing the pivotal role of personality composition in fostering creativity, innovation, and enhanced team performance. In this case, it is evident that there has been a shift from process factors explaining how teams function to the afterthought of who makes up creative and innovative teams. In fact, this evolution continues and evolves in the third period we are in. In the post-2020 era, the rapid digital evolution of technology has precipitated profound transformations in the workplace. The emergence of hybrid work models, coupled with the global pandemic, has brought about a newfound recognition of the nuances that characterize team members, including their less evident qualities (Costa et al, 2024; Handke et al, 2024). This recognition has prompted a heightened focus on the study of individual personality traits and their influence on team dynamics, with a particular emphasis on personality traits such as narcissism, affective rumination, and a proactive nature. These recent developments in the field represent a break from the iconic Big Five model and a focus on the dark side of employees or the effects of time-honored personality factors such as proactivity. These findings suggest that the field of team personality research is indeed developing coherently within the broader context of business and management research. The field is expected to continue to evolve, with studies focusing on the role and effects of personality factors in teams and groups.

### **Limitations and Future Research**

The present study was chiefly based on data obtained from the WoS database. In this respect, the present study does not include research published in other databases such as Scopus and Google Scholar. The rationale underlying this determination is twofold: first, the WoS database boasts the most robust



disciplinary representation; second, it possesses the capacity for advanced analysis. Nevertheless, this choice may have led to the absence of some studies that made constructive contributions both theoretically and practically. Future studies could address this limitation by combining multiple data sources to provide a more comprehensive overview of personality-oriented work team research.

Moreover, bibliometric analysis chiefly furnishes quantitative insights into research trends, citation networks, and keyword evolution. Nevertheless, it is deficient in its inability to adequately capture the qualitative depth of conceptual advances or theoretical debates within the field (Zupic & Čater, 2015). From this perspective, combining bibliometric techniques with systematic literature reviews or meta-analyses can provide a more comprehensive perspective on how personality traits influence team dynamics.

Despite the growing interest in team dynamics, several gaps remain in the extant literature that warrant further exploration. First, while the impact of personality traits on team performance has been studied, there is a paucity of longitudinal research examining how these dynamics evolve over time and influence long-term outcomes. Second, the role of cultural and contextual factors in shaping personality dynamics in teams remains underexplored, particularly in diverse or cross-cultural settings, which limits our understanding of how external environments interact with team traits. Thirdly, bibliometric analyses have become a valuable tool for mapping research trends; however, the integration of AI and machine learning techniques into these methods is still in its infancy. Leveraging these technologies could significantly enhance the precision and efficiency of trend analysis in team dynamics research. Lastly, the rapid adoption of hybrid work models in post-pandemic organizational structures has created a new frontier for research. However, the relationship between personality in teams and “hybrid work arrangements remains poorly understood, highlighting a critical gap in our knowledge of how personality traits influence team effectiveness in flexible work environments. To this end, given these caveats, it is imperative to acknowledge that the research data and findings of this study may not encompass these domains due to their current state of underdevelopment. In this sense, addressing these gaps could provide valuable insights for both academia and practice.

## **CONCLUSION AND PRACTICAL IMPLICATIONS**

According to the research carried out in the framework of the study, the variable of personality and its effects have become increasingly important in the research on business teams. From this point of view, a comprehensive evaluation and consideration of the personalities of the team members in the process of creating high performance teams can be beneficial for the teams to reach their full potential. Bibliometric studies have revealed the evolution of the research field over time, and it has been observed that the interest in personality research in teams has increased significantly since the 1980's. A prevailing finding in the field is that research institutions in the USA are at the vanguard of research quantity and quality. The present study indicated that the network of relationships among researchers is characterized by clearly delineated boundaries, thereby resulting in the presence of

distinct groupings within the field. However, the connectivity among researchers is found to be limited in strength.

The present study is of considerable importance, as it is the first bibliometric analysis of the last 45 years of research on personality in work teams. The study elucidates the predominant research themes, periodic trends, geographical orientations, network structures, and the most influential publications in the field. In this way, it provides researchers with a visual indication of the general orientation of the field and draws a directional map. Additionally, it also provides concrete suggestions for future research. To this end, at the level of theoretical contribution, the present study clarifies the scope and boundaries of the field by mapping the temporal and thematic evolution of the literature on personality in work teams. In terms of application, it contributes by generating recommendations based on current knowledge clusters and trends on the personality dimension in team formation studies.

Considering these findings, in addition to theoretical and conceptual implications for the research field, the research findings also contribute to the development of recommendations for practical applications. For example, a comprehensive understanding of the role of personality in teams can facilitate data-driven decision-making processes when forming and managing teams. In his regard, organizations may be advised to consider team members' personality constructs as well as their technical expertise. For example, based on the findings in the literature, teams could be formed with high average levels of conscientiousness and agreeableness. In addition, the network analysis and thematic evolution maps from the study suggest an increasing focus on trait variability within teams (e.g., heterogeneity in extraversion and emotional stability). At this point, attention should be paid to the variability dimension as well as the mean level. For example, maintaining moderate levels of extraversion variability may improve performance and social cohesion. On the other hand, minimizing extreme variability in Neuroticism can help balance the emotional dynamics of the team and reduce conflict.

Furthermore, the significance of variables such as team learning and psychological safety as determinants in bibliometric cluster analysis underscores the necessity for organizations to formulate an ongoing and dynamic formation strategy. At this juncture, it is incumbent upon organizations to periodically assess the efficacy of the team formation process. In essence, adhering to the original team's composition and presuming its perpetual efficacy could lead to a grave miscalculation. This is particularly salient in circumstances involving ambiguities in team roles or the presence of formidable challenges. In such cases, the prevailing team dynamics might prove to be inadequate, necessitating adjustments to optimize functionality and performance. For instance, managers can enhance team-design strategies by considering personality diversity. It is incumbent upon team leaders to cultivate a harmonious balance of personality traits within their teams, thereby fostering enhanced team cohesion and performance.

Finally, in the era of digital transformation, decision makers can also benefit from the new technological tools that come with Industry 4.0 to reform their formation approaches. In this sense, AI-based psychometric tools can be used, and alternative views can be obtained to ensure harmony between the team's personality structure and the team's tasks.

### Statement of Research and Publication Ethics

In all processes of the article, the principles of research and publication ethics of the Journal of Management and Economics have been followed.

### Contribution Rates of Authors to the Article

The entire article was written by Assist. Prof. Dr. Mustafa Doruk Mutlu wrote the entire article.

### Declaration of Interest

The author has no conflict of interest with any person or organization.

There is no potential conflict of interest in this study.

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