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Exploring Self-Management Practices in SMEs: Insights from an Initial Survey

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Abstract

Self-managed teams are perceived as highly productive and have been actively studied in recent times. Considering this, the notion of the utility of establishing and cultivating such teams in small and medium-sized businesses in Kazakhstan has emerged, aiming to enhance their role in the country's economic development. Therefore, the authors of this article have resolved to conduct an empirical study on teams operating within the SMEs sector of Kazakhstan. This study aims to present the findings of an initial survey conducted among employees of small and medium-sized enterprises to characterize their self-management capacities and identify factors influencing their self-management abilities. For this purpose, representatives of teams in small and medium businesses in Kazakhstan were surveyed. The design of the survey questionnaire involved three field experts to validate and refine the questions. Findings reveal that approximately two-thirds of SME teams in Kazakhstan demonstrate characteristics of cross-functionality, diversity, motivation, and co-location, indicative of their self-managing nature. This suggests agile management's potential for organizational goals. To the best of the authors' knowledge, this is the first empirical study aimed to investigate how far the teams in Kazakhstani enterprises are self-managed.

Keywords: Project Management; Teamwork in Organizations; Research Project; Working in Teams; Teams; Business.

1. Introduction

Up to 99% of all firms are small and medium-sized enterprises (SMEs), accounting for two-thirds of all private sector employment [1]. These businesses are mostly run by the people who founded and own them. Small and medium-sized businesses (SMEs) must leverage outside information because they have less internal resources and knowledge than larger enterprises. However, the issue is that corporate and large-scale businesses are frequently used as best-practice examples for creating management practices in business literature and training programs, making them inappropriate for small and medium-sized businesses. Furthermore, as owner-managers of SMEs typically lack a formal management education, they are unable to employ the same management techniques that are frequently employed by professional managers. SMEs that use open innovation perform better overall when it comes to innovation [2].

This research aims to demonstrate Micro, Small, and Medium Enterprises' relevance, role, and contributions to the seventeen Sustainable Development Goals (SDGs). The reserch examines the role of SMEs in the SDGs. The research

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unpacks the role of SMEs in economic activity, in producing employment and incomes, notably for the poor and disadvantaged groups, as service providers for example in education, health, water and sanitation and as energy users/polluters with environmental footprints. Through these perspectives, it is feasible to create direct and indirect relationships between SMEs and the seventeen goals. The ambitious SDG targets call for governmental and private sector operations changes. This shift is linked to adopting new business strategies, introducing fresh innovation and technology, and conducting business in a more ethical and sustainable manner. For SMEs in particular, this process creates new commercial opportunities for the private sector as a whole. By 2030, sustainable business models may provide 380 million new employment, more than half of which would be in developing nations, and open up economic prospects valued at $12 trillion, according to the Business and Sustainable Development Commission. Under each aim, these opportunities for SMEs have been noted [3]. Additionally, the research focuses on particular business cases and best practices programs that help SMEs and help accomplish the SDGs.

According to the most recent estimate, 783 million people, or 11% of the world's population, were estimated to have lived below the extreme poverty line in 2013 [4]. The majority of the impoverished in developing nations are either unemployed or make insufficient money to escape poverty. The creation of jobs in the private sector is a key factor in the battle against poverty. In the last three decades, the percentage of people in developing nations living below the poverty line has dropped dramatically from 52% to 22%, mostly due to the efforts of the private sector [5]. SMEs play a major role in the private sector's process of creating jobs. SMEs created four out of every five new jobs in the formal sector in emerging markets [6].

A significant portion of SMEs in lower-income economies are unofficial businesses that provide a living for the 4 billion people who make less than US $3000 annually, who make up the base of the pyramid [7]. Over 70% of workers in developing nations are thought to work in the informal economy, either as independent contractors or as employees of companies that aren't legally recognized. The informal economy offers chances for the impoverished, especially women and young people, to make money because of its flexibility [5, 8].

The bulk of people working in the informal economy, according to the International Labour Organization, do not have access to social safety, respectable working conditions, or workplace rights. Informal businesses present a way for interventions to legalize SMEs and give their employees access to social security. SDG Goal 1 would be reached with assistance in formalizing SMEs, especially in developing economies where informal employment is prevalent.

It is possible for individual SMEs to implement changes in their operational procedures that advance the objective. They have the authority to impose stringent laws and regulations that do not discriminate against the underprivileged [9]. To incorporate local community members, particularly those who are impoverished, into the SME value chain, SMEs can also hire, educate, and train them. SME innovation in business concepts and solutions that will support SDG achievement. The private sector, particularly SMEs, is taking advantage of the new opportunities and business models presented by the ambitious drive to eradicate poverty through the SDGs. Even though the impoverished have little purchasing power, the overall impact is significant. The World Resources Institute reported that the base of the pyramid represents a $5 trillion global consumer market with significant purchasing power [10]. They provide a market that is becoming more and more mobile phone linked. The market's size and the widespread use of mobile phones present chances for market-based approaches to provide services that would enable individuals to escape poverty. Encouraging business initiatives include introducing efficient, multi-fuel cook stoves, low-cost solar lighting systems that can provide a few hours of light in the evening, and inexpensive water filters or home treatment systems that enable households to purify their water. A large number of these programs use microfranchising.

An estimated 9.34 million formal women-owned MSMEs worldwide, or almost one-third of all formal MSMEs, are thought to exist in over 140 examined countries, according to data from the International Finance Corporation's (IFC) Enterprise Finance Gap Assessment Database. When weighed by the number of women in the region, Europe and Central Asia have the most, but altogether, East Asia and the Pacific have the largest number. South Asia has the lowest by any metric. In all industries, formal women-owned MSMEs are actively involved. They are perhaps more prevalent in the healthcare, cosmetics, and beauty, as well as retail and wholesale industries. They are somewhat less prevalent in the manufacturing, agricultural, and construction sectors, but they hold about equal ground in the tourism, transportation, hotel and restaurant, services, and trade sectors. But among the several difficulties faced by women-led and -owned businesses, the most significant is the lack of funding. Lack of networking opportunities and business acumen are two further obstacles. Women's economic empowerment may come from MSMEs with a stronger female owner or leader.

According to IFC research, women make about one-fifth of the workforce in the SME sector. The available data indicates that women make up 20.45% of employees in registered SMEs and 13.02% of employees in unregistered businesses. Analyzed data across MSMEs reveals that, similar to ownership, women are employed most frequently in micro, small, and medium-sized businesses. Nonetheless, women labor in low-skilled occupations for the most part, where they are compensated little, endure unsuitable working conditions, and are not covered by social security, maternity benefits, or laws against sexual harassment. Improving MSMEs' work environments can contribute to women actively participating in the economy and achieving the objective [10, 11].

Gender equality can be significantly influenced by financial inclusion. There is a $1.7 trillion funding gap in the US since 80% of women-owned businesses with credit needs are either underserved or unserved [12]. Women business owners, especially those from impoverished rural areas, frequently face obstacles in expanding their enterprises because they lack the land titles and/or collateral required to obtain official financing sources. Research indicates that women are more cautious risk-takers, more responsible borrowers, and better savers than men. The Bank of New York Mellon estimates that by expanding women's access to financial services and products, $330 billion in yearly global income might be generated [13]. Thus, financial institutions must be encouraged to support female entrepreneurs. Women's World Banking Capital Partners Fund, a limited partnership focused on private equity and direct equity investments in women-oriented financial institutions, is a prime example. Their investing approach is based on the idea that investors have the power to persuade organizations to include women clients in their growth strategy for financial institutions. In a similar vein, the Credit Suisse-cofounded Asia Impact Investment Fund invests in companies that support women's empowerment [14].

The SME sector is likewise very diverse. No single category could apply to all of these businesses, as they represent practically every industry and have unique operational, cultural, and growth potential patterns. Additionally, SMEs can implement open innovation approaches in a variety of ways, including coupled, inside-out, and outside-in paradigms [15]. Jennings and Beaver developed an opinion regarding small business management procedures. They proposed that the management process in small businesses is distinct and different from that of larger corporations. It is not to be assumed that small-firm management operates on the same small-scale scale as professional managers operating in large organizations [16]. According to Kaplan and Norton, a management system is an integrated collection of procedures and instruments that a business utilizes to formulate its strategy, operationalize it, and track and enhance its efficacy. In addition to the definition, they proposed a concept known as the balanced scorecard, which connected different financial and nonfinancial components of business through clearly defined cause-and-effect linkages and combined the financial, market, process, and development dimensions of business [17].

Controversial evidence of certain concepts influencing organizations' performances and procedures is growing. Yusr categorizes the arguments about the relationship between total quality management (TQM) and innovation into two groups: the first group maintains that TQM and innovation have a positive relationship, while the second group contends that TQM hinders innovation in businesses [18]. The application of agility, particularly in the early stages of innovation, maybe a good option to accelerate environmental dynamics in the current volatile corporate environment [19]. An organizational agility model can also be constructed using agile practices, capabilities, and qualities [20].

A significant fraction of businesses in the private sector are run by their founders or owners and owned by people or families. Millers and Gaile-Sarkane's research resulted in the development of a preliminary typology consisting of 10 types of SME owner-managers based on their various managerial authorities and ownership status in enterprises [21]. According to a UK survey, SMEs were less likely than larger companies to employ conventional management methods. SMEs that employed these methods, however, seemed to profit from them clearly, as they were positively correlated with productivity, growth, and firm survival [22].

The use of purposeful knowledge inflows and outflows to boost internal innovation and increase markets for external innovation usage is known as open innovation [23]. Despite their limited internal resources and knowledge, small and medium-sized businesses (SMEs) have a significant degree of diversity within the SME sector. Chesbrough et al. [24] noted a number of patterns in the evolution of open innovation. One tendency is that innovation is shifting from giant corporations to small and medium-sized enterprises (SMEs); another is that the sector is starting to professionalize internal procedures to handle open innovation more successfully and economically. Still, it is still more trial and error than a well-managed procedure at this point.

Yun et al. organized the intricate connections between open innovation, complex adaptive systems, and evolutionary change into a conceptual model. Yun argues that the corporation is the fundamental agent of open innovation. A company's open innovation process goes through a sophisticated adaptive mechanism before evolving into new forms of change. In actuality, though, open innovation might be sparked by a particular complex adaptive system via evolutionary features at every given organization [25].

The application of closed- and open-innovation principles by social companies in the developing digital economy was assessed by Svirina et al. [26]. One method of managing a firm is to employ inbound information transfer to foster open innovation [27]. Romero et al. identified ten eminent writers on business models and business modeling, such as previous studies [24, 22, 28-30], who put out formal meta-business models in publications between 2000 and 2010 [31]. An extensive evaluation of an organization's sustainability performance can be carried out in a variety of methods [32]. Many economic, noneconomic, and crucial criteria can all be used to establish a company's sustainability [33].

Enterprise management techniques can also be impacted by the owner's mindset [34], age of the CEO or owner [35], management style, and individual preferences [36, 37]. Since it is assumed that managers of SMEs frequently lack a traditional management education, an analysis and development method for their management practices must take into account their knowledge and proficiency in management.

Agile methodologies have gained popularity in software development across organizations of varying scales. Subsequently, the efficacy of the flexible approach has extended to diverse industry sectors, with its application in Small and Medium-sized Enterprises (SMEs) becoming a subject of research discussion. The Agile family, encompassing widely applied frameworks such as Scrum, Kanban, and Extreme Programming (XP), are utilized for product planning and development. The adoption of Agile in IT projects of SMEs confers several advantages including accelerated time-to-market, enhanced productivity, improved team performance, and heightened product, and service quality [38]. Thus, Agile development enables SMEs to respond to external changes and adapt accordingly swiftly.

While scholarly literature historically concentrated on large organizations, current discussions highlight the application of agile methodologies in SMEs across sectors. Non-IT SMEs, due to their distinct characteristics, require a comprehensive exploration of Agile methodologies for adaptation. The adoption of Agile methodologies in a medium-sized Slovenian manufacturing company resulted in improved communication and decision-making efficiency. This success was also attributed to the team's characteristics, which included high motivation, cross-functional expertise, and co-location, enhancing their ability to collaborate effectively and solve problems efficiently. The project team, composed of individuals from diverse fields such as research, technology, and sales, demonstrated Agile principles through daily stand-up meetings and the use of visual management tools [39]. Some studies highlight the importance of clear task portfolio division, strong team relationships, and effective coaching for the successful implementation of self-managing teams. These characteristics are critical in enhancing team productivity and efficiency, which can subsequently contribute to the development of small and medium-sized enterprises (SMEs) [40]. In addition, the results indicate that the successful development of self-organizing teams in industrial settings depends on high levels of team autonomy, high task interdependence, timely feedback, and low task routineness. These characteristics promote self-regulated team behavior that supports the organization's process improvement and sustainable development [41]. In SME development, Agile methodologies are pivotal, providing tangible benefits in market agility, operational efficiency, and product/service quality, regardless of sector. Despite challenges, empirical evidence supports Agile adoption for SME growth and adaptability in the dynamic business landscape. Further research and case studies are needed to explore nuanced applications across various SME contexts. This study assesses the readiness of SME personnel in Kazakhstan to adopt agile management technologies, with a focus on team self-organization.

This research focuses on SME teams, considering the vital role of small and medium-sized enterprises in Kazakhstan's economy. SMEs contribute 33.3% to the country's GDP, with an annual growth rate of 1-1.5% [42]. Given the need for adaptability and change readiness in today's dynamic environment, the effective application of Agile approaches is crucial. SMEs, irrespective of their industry, can leverage various Agile tools, adapting them to their unique characteristics. The inherent flexibility of Agile enables SMEs to customize implementations to meet specific needs and constraints, demonstrating the adaptability required in a rapidly changing world.

Guided by the Project Management Institute's insights on Agile methodologies [43], successful implementation requires a triad: a facilitating leader, a self-managing team, and a project-oriented organization. This study concentrates on team characteristics, specifically exploring self-managing tendencies within Kazakhstani SMEs. The literature review refined the criteria for defining a self-managing team, informing the creation of a questionnaire for empirical investigation.

2. Literature review

Being able to regulate oneself requires reflection. A person must take an honest, in-depth look at their emotional intelligence, self-control, and leadership style in order to realize how much they truly regulate themselves. Although it's not simple, self-management is a skill that can be acquired. It's also worthwhile because, by developing their self-management abilities, employees will inevitably become better leaders. from their personal growth to their superior project management abilities.

Effective behavior, cognition, and emotion regulation is a key component of self-management for both personal and professional success. By encouraging self-awareness and wellbeing, effective self-management raises emotional intelligence. This entails being aware of social signs and honoring one's own needs. Although it may not always come easily, self-management is an essential leadership quality that can be acquired with the correct resources and practice. Seven self-management skills required for good leadership in an organization is shown in Figure 1. The top seven abilities to cultivate in self-management are as follows:

- ***Time Management***: The ability to govern one's use of time is known as time management. This entails managing the daily to-do list activities and putting the most important chores first. A leader with strong time management abilities can do so independently of outside assistance. Effective time management can help you stay focused and prevent procrastination. Time management gives a leader adequate time to complete their tasks on time and to inspire others to do the same.
- ***Personal Drive- Self-motivation*** is the capacity one has within oneself to get motivated and actively do everyday tasks. While self-motivation does come with a certain amount of personal responsibility, it can help someone become more self-aware and prioritize their priorities. Intrinsic motivation, or motivation from within, is comparable to this. Similar to self-motivation, intrinsic motivation is derived from a range of individual characteristics. One's internal motivation for volunteering, for instance, can be the sense of fulfillment it brings.

External motivators, on the other hand, are impacted by outside forces. For example, working more quickly because they are concerned about the consequences of working more slowly. Maintaining personal motivation and interest during the workday depends in large part on finding work satisfaction. Finding work satisfaction can also motivate the whole team to perform at their highest level. Strive for objectives that fulfill you and give a feeling of purpose if team want to exercise internal motivation.

- ***Stress Management-Stress*** is something that leaders deal with on a regular basis, but excellent self-management requires healthy stress management. Overwork and burnout can result from poor stress management. Effective stress management practitioners take a targeted approach to their work by linking their projects to overarching objectives. A person can more effectively prioritize their work and probably feel more satisfied when they do so when they understand which tasks are most crucial and how project deliverables relate to team objectives. This kind of active engagement with your work is self-care that can help you stay calm and reduce stress.
- ***Flexibility-Being*** flexible is having the self-assurance and know-how to shift course when necessary. This is particularly crucial for leaders who operate in a hectic setting with frequent project modifications. Let's say, for instance, that a new project comes up that requires more attention than the one someone has been working on for the past few weeks. Leaders who are flexible and curious can embrace this shift rather of getting anxious or irritated. It's crucial to possess this ability in order to stay flexible. Being adaptive can make someone a great leader because it allows them to handle any situation that comes their way, even though it may not always be comfortable. It gives the team the confidence to follow suit.
- ***Decisions Making-Leaders*** must learn how to make decisions that clear things out and empower their teams in order to be effective. Your ability to make personal decisions can be enhanced by tackling problems and finding solutions. Making decisions is a talent that can be learned, just like all the other skills we have examined thus far. Develop your critical thinking abilities first, then when issues emerge, learn how to evaluate important data. Additionally, make sure decisions are based on data rather than conjecture by using data-driven decision making to ensure fewer problems in the future.
- ***Goal Alignment-Establishing:*** Goals entails ranking the most crucial initiatives according to their potential influence on the company. This entails having the ability to see the wider picture and understanding what is best for the group as a whole. Long-term, this will improve performance and raise team spirit. Three primary skills are needed for goal alignment. (i) Establishing goals. Make sure to consider present pain areas, growth targets, and resource allocation strategies when creating goals. These will all help you create well-informed goals. Make sure your goal is time-bound, practical, quantifiable, and specific by using the SMART goals framework. (ii) Communication of objectives. This entails controlling the team's objectives as well as always coordinating them with the overarching objectives of the company. Members of the team will then be aware of how their work fits into the bigger picture. Aligned teamwork and open communication are necessary for this. (iii) Tracking of goals. Setting and communicating goals is crucial, but so is keeping track of them. This is essential for tying daily efforts to more ambitious objectives and tracking the team's development over time.
- ***Personal development***: Personal development is essential for all members of a team, particularly for those in leadership positions. To enhance the collective knowledge of the team, it is crucial to first invest in personal growth. This involves dedicating time to participate in workshops, enroll in courses, and engage with industry professionals to refine management capabilities. By continually advancing one's skills, leaders can inspire their team members to pursue similar growth. This commitment not only fosters individual career advancement but also contributes to the overall progress of the organization.

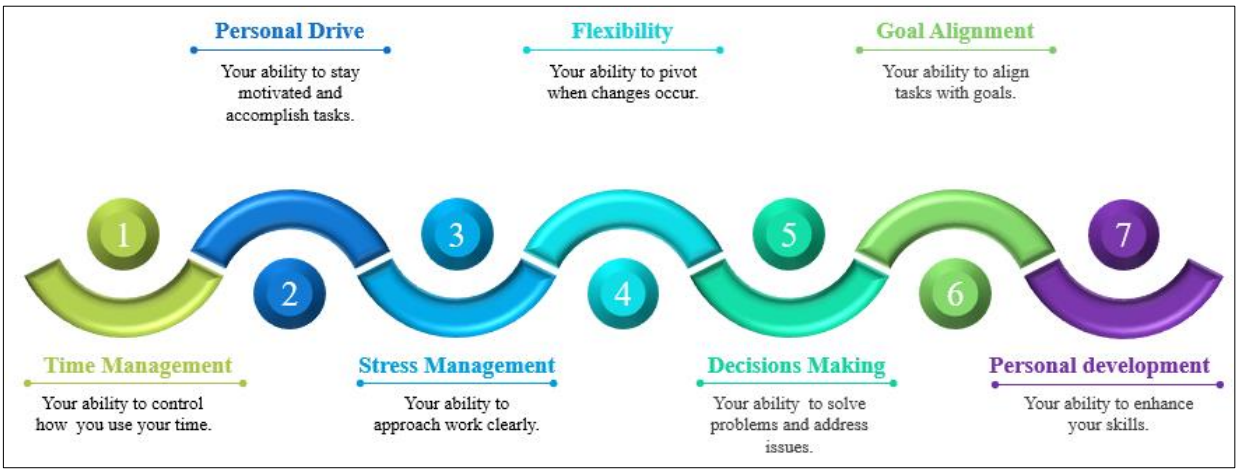


Figure 1. Seven self-management skills required for a good leadership in an organization

Self-management practices research has grown and diversified significantly, according to a study of research trends in Scopus-indexed journals from 1988 to 2024. The growing body of publications is indicative of the growing significance of self-management in a variety of fields. Subsequent investigations ought to concentrate on creating self-management strategies that are inclusive, sustainable, and scalable and that cater to a wide range of demographics and changing social demands, as shown in Figure 2.

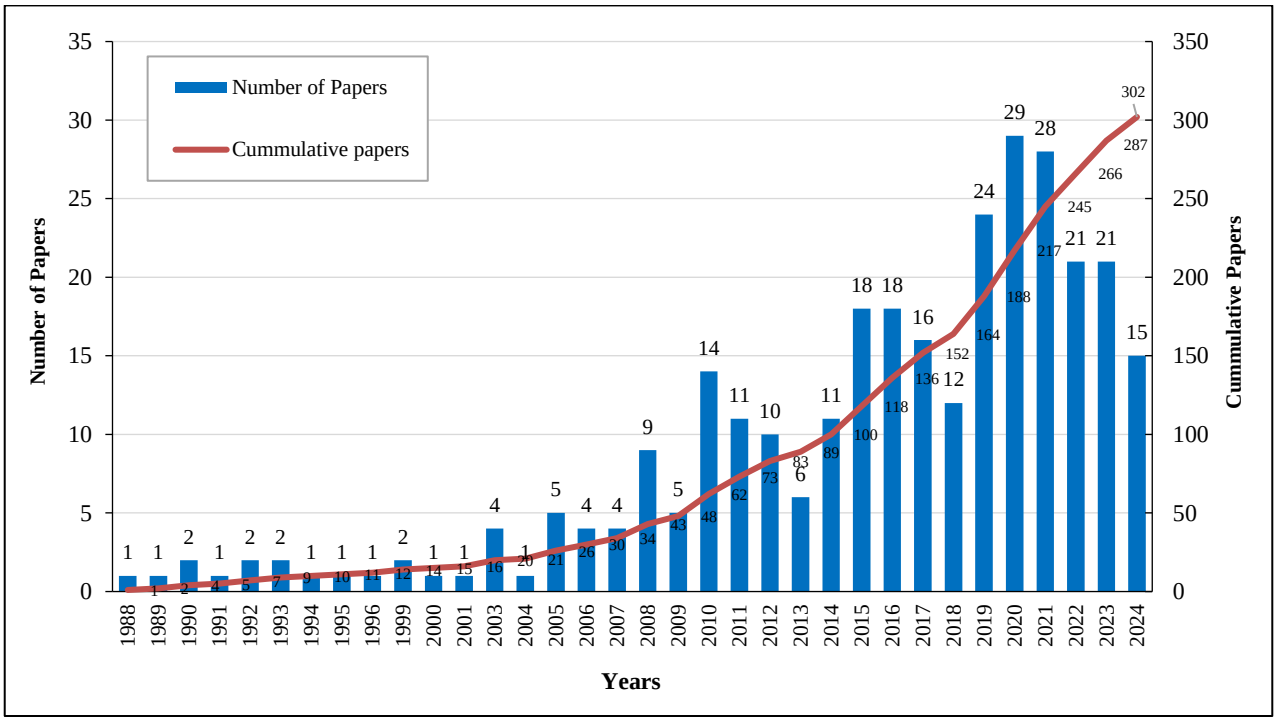


Figure 2. Self-management practices research trends from 1988 to 2024

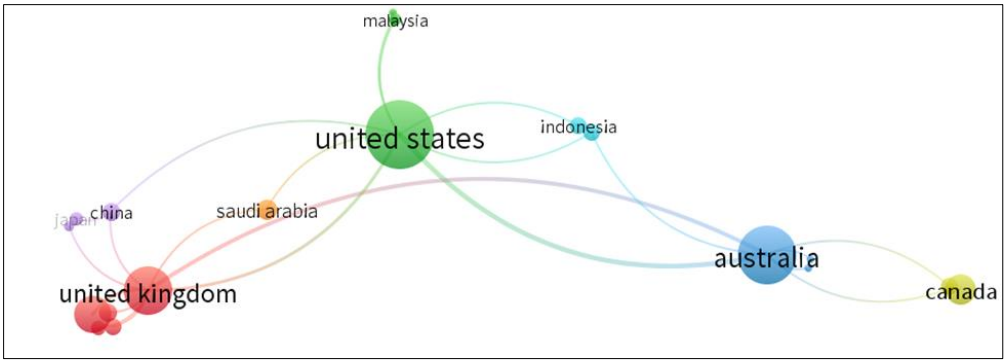
According to citation country analysis, the United States and the United Kingdom are the top two countries contributing to the body of research on self-management techniques, both in terms of quantity and quality is shown Table 1. High citation per document metrics also demonstrates strong impact from the Netherlands and Australia. China and India, on the other hand, produce and impact less research, which points to room for improvement. This analysis emphasizes the value of cross-border cooperation and the room for regional expansion in the study of self-management methods. The United States leads in publications and citations, demonstrating a significant influence on self-management practices and strong research output. The high number of citations indicates the substantial impact and importance of the study, which is relevant to the country with the highest GDP among the countries analyzed. Although the UK publishes fewer articles than the US, it has a high citation rate per document, indicating that UK research is important and of high quality. Research findings are consistent with its high GDP. Australia demonstrates a comprehensive strategy with modest publications and citations. The citation rate per article demonstrates the laudable impact of the research, which is consistent with its financial status. Although the Netherlands produces fewer publications, it contributes significantly to research, as evidenced by the high number of citations per document. Relatively low total link strength indicates fewer collaborative links, which may impact overall study visibility.

Data shows that countries with higher GDP generally publish more research papers in the field of self-management technology and are cited more frequently. However, even in countries with lower publication rates, the quality and impact of research is evident, as evidenced by the number of citations per article. This analysis highlights the importance of research output to the academic environment, not only in terms of quantity but also in terms of quality and impact.

According to VOSviewer, countries with higher GDP generally have more research output and citations on self-management practices. On the other hand, the citations to documents ratio emphasizes the quality and importance of the research and shows that even small countries can produce very important research. The analysis emphasizes the quantitative and qualitative value of academic contributions, with the impact and capabilities of research being significantly influenced by the economic context (see Figure 3).

Table 1. Citation Country analysis in the Self-Management Practices concerning National GDP

#	Country	Papers	Percentage	Citations	Citation Per Document	National GDP	Total link strength
1	USA	91	27	2285	25	$25.463 trillion	11
2	UK	41	12	1270	31	$3.071 trillion	13
3	Australia	40	12	855	21	$1.675 trillion	10
4	Netherlands	22	6	559	25	$991 billion	2
5	Canada	21	6	422	20	$2.140 trillion	1
	China	11	3	31	3	$17.963 trillion	2
7	India	9	3	56	6	$3.385 trillion	1
8	South Africa	9	3	53	6	$406 billion	0
9	Switzerland	9	3	121	13	$808 billion	0
10	New Zealand	8	2	62	8	$247 billion	0
11	Saudi Arabia	8	2	86	11	$1.108 trillion	2
12	Germany	7	2	137	20	$4.072 trillion	0
13	Malaysia	7	2	63	9	$406 billion	1
14	Thailand	7	2	104	15	$495 billion	5
15	Norway	6	2	146	24	$579 billion	1
16	Belgium	5	1	73	15	$579 billion	1
17	Denmark	4	1	116	29	$395 billion	1
18	France	4	1	139	35	$2.783 trillion	2
19	Indonesia	4	1	41	10	$1.319 trillion	4
20	Iran	4	1	142	36	$389 billion	0
21	Ireland	4	1	17	4	$529 billion	0
22	Nigeria	4	1	85	21	$477 billion	0
23	Sweden	4	1	155	39	$586 billion	0
24	Ethiopia	3	1	113	38	$127 billion	0
25	Hong Kong	3	1	45	15	$360 billion	0
26	Portugal	3	1	12	4	$252 billion	1
27	Spain	3	1	108	36	$1.398 trillion	0



Sr. No	Document	Citations	Links	Reference
1	Coster (2009)	164	6	[44]
2	Macdonald (2008)	98	6	[45]
3	Walters (2012)	23	2	[46]
4	Harris (2008)	57	1	[47]
5	Lake (2010)	44	1	[48]
6	Ersser (2012)	27	1	[49]
7	Ercolano (2016)	26	1	[50]
8	Robinson (2008)	26	1	[51]
9	Coster (2020)	18	1	[52]
10	Blok (2017)	18	1	[53]

Figure 3. Citation country analysis of self-management practices: a VOSviewer perspective

Much of the research demonstrates the importance of self-managing teams and flexible management tools in modern organizations. They emphasize the need for balance between autonomy and leadership, and further outline key aspects of successful team functioning.

Teams are crucial for organizational success, and the criteria defining these teams play a significant role. This is evident in the emphasis on self-managing teams and flexible management tools in modern organizations, highlighting the importance of balancing autonomy and leadership while delineating key aspects of successful team functioning. Implementing Agile in organizations centers on Agile teams, described as self-managing or self-organizing with attributes like dedication, cross-functionality, and co-location [43]. Self-organizing teams exhibit heightened accountability and autonomy, fostering motivation and engagement. This autonomy contributes to the flexible growth of small and medium-sized businesses. Similarities exist between SME teams and self-organizing teams, particularly in cross-functionality, diversity, and motivation. Slovak companies aim to transition to Agile, emphasizing self-organizing teams [54].

Team autonomy comes mostly from motivation. It is a critical factor for self-managed teams, as highly motivated teams are more likely to take the initiative and drive their projects to successful completion. The significance of motivation is emphasized in studies investigating personnel management strategies and their implementation for optimizing team effectiveness, alongside the recognition of shared leadership and self-organization in enhancing team cohesion, resilience, and productivity [55].

Co-location, wherein team members operate in close proximity while utilizing various programs to enhance interaction, fosters improved communication and collaboration. These findings highlight the profound importance of team spatial arrangements, showcasing that the strategies employed for team co-location or dispersion significantly influence the efficiency and efficacy of collaborative endeavors [56]. The use of specialized communication and project management tools can significantly improve team interaction and contribute to the successful execution of projects [57]. Specialized communication tools, such as online collaboration platforms, video conferencing, and messaging applications, facilitate real-time information sharing, task tracking, and seamless coordination among team members. These tools enable efficient exchange of ideas, provide visibility into project progress, and help ensure that all team members are aligned on objectives and responsibilities. Competencies are paramount in the efficacy of Self-Managing Teams (SMTs), highlighting leadership, teamwork, and a diverse technical skill set facilitating intra-team flexibility. Both internal and external leaders play crucial roles in SMT dynamics, fostering team autonomy through mentorship, coaching, information dissemination, training, resource allocation, and recognition [58].

Self-managed/self-organizing teams, as asserted by Nijholt & Benders [59] and Humphrey et al. [60], are employee groups responsible for managing their work processes and outcomes. Doblinger [61] emphasizes competencies like self-efficacy, proactive personality, and learning orientation, positively linked to team effectiveness. Launching self-managed teams requires competencies such as taking responsibility, initiative, decision-making, adherence to leadership principles, active communication, enthusiasm, ambition, relationship management, conflict resolution, and direct expression of opinions [61]. Cross-functional teams, composed of members with different functional expertise, enable broader skill sets and more innovative problem-solving capabilities. Research highlights the paradoxical nature of cross-functional team communication, where while small teams benefit from increased communication across functional boundaries for creative outcomes, larger teams might suffer from excessive cross-domain communication, impacting innovation adversely [62]. Diversity within teams, in terms of skills, perspectives, and backgrounds, enhances creativity and adaptability. Diversity within a team refers to variations in backgrounds, perspectives, and attributes, and according to the study provided, it can positively influence team performance by facilitating the exchange of different viewpoints and experiences, thereby enhancing problem-solving abilities and overall team effectiveness [63].

Consolidating components from the Agile practice guide [43], this study identifies primary self-managed team characteristics: cross-functionality, diversity, motivation, and co-location. The research will examine the presence of these characteristics in Agile teams within Kazakhstani SMEs. To understand the extent to which employees in SMEs in Kazakhstan conform to the criteria of self-organizing teams, it seemed expedient to survey representatives (both employees and managers) of SMEs in Kazakhstan. This, in turn, would aid in gauging the readiness of SMEs in Kazakhstan for Agile development, which currently stands as the most effective approach in the face of our rapidly changing world. The questionnaire consisting of 14 questions aimed at revealing the presence of the four components mentioned above was elaborated.

Initially, 230 records were identified from the Scopus database. Records were collected based on predefined search criteria related to review of self-management practices. Of the 230 records identified, 150 records were screened. This step includes an initial review of titles and abstracts to eliminate obviously irrelevant or duplicate records. As a result of the screening, a total of 110 reports were found through full text search. The purpose of this stage is to obtain a complete report for further evaluation. A total of 60 reports were evaluated for eligibility. This involves thoroughly evaluating the full text of the article to determine whether it meets the inclusion criteria set by review. Ultimately, 45 studies were included in the systematic review. The studies were found to be relevant and of sufficient quality to contribute to the

aims of the review. Of the studies included in the review, five reports were particularly important and provided detailed insights related to the research question. As outlined, the literature review process ensured a rigorous and comprehensive approach to identifying relevant studies and including them in the Scopus database. This meticulous process resulted in the inclusion of 45 studies, of which 5 seminal reports significantly contributed to the review. Literature review and synthesis of research published in the Scopus database on self-management practices details is shown in Figure 4.

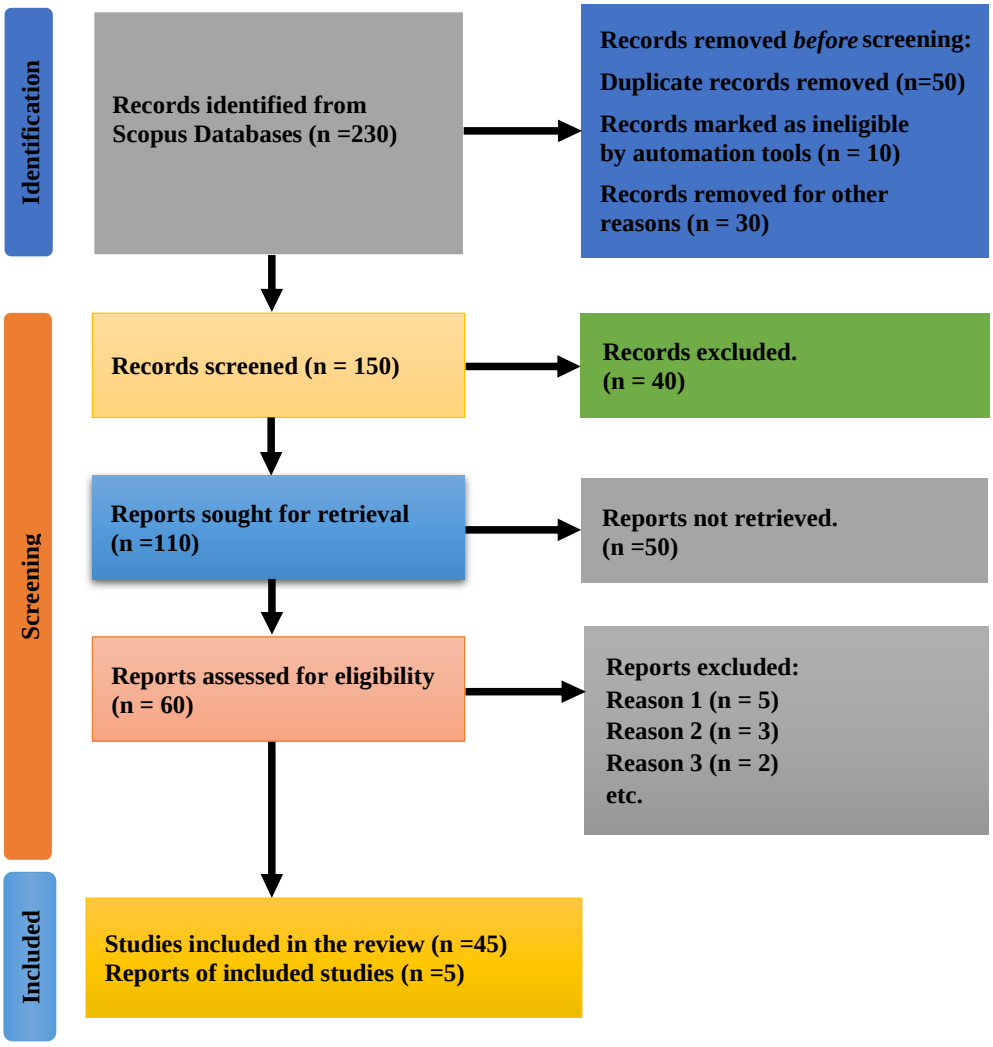


Figure 4. Literature review and synthesis of research published in the Scopus database on self-management practices

3. Research Methodology

The study explores self-managed teams in Kazakhstani SMEs. Participants included employees from organizations of various types and durations of operation, spanning different age groups. A survey assessed team collaboration, communication, and employee engagement. To ensure efficiency and validity, a concise, anonymous questionnaire with two sections was administered, addressing demographics and team functioning. A survey was selected as a suitable method for collecting comprehensive data from a large and diverse sample of respondents across multiple industries.

Survey Objective, Sample Description and Procedure:

The aim of the survey was to ascertain the extent to which employees in Small and Medium-sized Enterprises (SMEs) in Kazakhstan align with the criteria of self-organizing teams and to determine whether formal characteristics such as team size, scale, type or duration of organizational activity, diversification of activities, age, work experience, or respondent's level of education influence the degree of team self-organization.

According to statistics, approximately 4 million people are employed in SMEs in Kazakhstan [64]. The survey was distributed to over 5000 employees from various companies. The valid returned online questionnaire amounted to 385 observations. The questionnaire was sent to emails of potential respondents listed in the database of the Union of Project Managers of the Republic of Kazakhstan and via official channels and landing pages of the Regional Chamber of Entrepreneurs “Atameken” as well as through snowball sampling. At the beginning of the online questionnaire, it was stated that the responses would not be passed on to third parties, and only aggregated data would be used in the report.

The pilot survey was done before the actual one and managed to gather responses from 84 respondents. The validity of the questionnaire was substantiated by the fact that the questions were formulated regarding the components of characteristics of self-managing teams identified through a literature review. Reliability was assessed through questions pertaining to the level of self-organization within the team. The reliability was tested using Cronbach's α, which yielded a value of 0.72.

Team Definition:

Each participant independently determined which part of the organization to consider as a "team," such as the organization, a department, a division, or any other defined subset of the collective.

Respondent Groups:

The main respondent groups included: team members working in SMEs, team and project managers, owners or top managers of SMEs, colleagues, and employees of interacting teams.

Rationale for Respondent Group Selection:

- Team Members: Participants included actual team members in SMEs to obtain their opinions and evaluations regarding the level of self-organization and autonomy within their respective teams.
- Team and Project Managers: Including managers allowed for their assessment and perspective on the level of self-organization within SME teams.
- Owners or Top Managers of SMEs: Interviewing owners or top-level management provided their evaluation and viewpoint on the level of team self-organization within the organization.
- Colleagues and Employees of Interacting Teams: Surveying colleagues and employees who interact with SME teams provided an external viewpoint on the self-organization within these teams.

Analysis and Presentation of Results:

Frequency analysis and descriptive statistics methods were employed for the analysis and presentation of survey results. For questions yielding numerical responses, central tendencies and dispersion were computed. Structural analysis of responses was conducted, and visualization methods such as diagrams were applied. Respondents' answers were assessed using a three-point Likert scale. Nominal data in answers represented three types of answers: the presence of characteristic, the absence of it, and some ambiguity.

4. Results

This survey revealed the self-managing nature of around two-thirds of SME teams in Kazakhstan. In various degrees, they possess features of cross-functional, blended teams, and a notable degree of autonomy and motivation. Based on responses from the questionnaire section, respondents were categorized into groups (e.g., based on their industry or team size). Subsequently, differences between these groups (where applicable) were identified using the chi-square test for independence. We need a certain number of individuals in each group to test is valid. So, to avoid micro numerosity we eliminate groups with severely small samples, i.e. less than 10.

The diversity of the respondents by age and work experience is shown in Table 2. Individuals aged 28 to 70 took part in the survey with work experience starting from the very beginning to 50 years. Around 8% of respondents are working in new companies operating for less than two years, 15% of respondents are working in companies operating for 2 to 7 years, and the rest 77% are representatives of companies working for more than 7 years. 45% of the respondents represent medium-sized businesses, while 55%, correspondingly, represent small businesses. According to the size of a company, respondents share were: 15% were representatives of companies with less than five employees, 18% with 5 to 20 employees, 21% with 20-100 employees, and 46% with more than 100 employees. The latter category represents a medium-sized business.

Table 2. Respondents' age and work experience

	Age	Work experience
Mean	42	21
Stdev	13.6	13.6

Diversity was measured using a range of demographic criteria including the varied age and work experience of respondents, as well as the tenure and size of their companies. These criteria demonstrated the breadth and inclusivity of team characteristics, highlighting the diverse composition essential for self-organizing teams. This diversity in demographics and organizational contexts underscores the adaptability and cross-functional collaboration prevalent in

these teams. The importance of such diversity aligns with findings in existing literature, which emphasize that understanding the optimal composition of diverse teams is crucial for achieving strategic goals and enhancing organizational outcomes [65].

In our survey, we employed specific questions designed to measure key criteria for assessing the cross-functionality of teams. These criteria included the presence of representatives from various functional areas within the teams, the methods of initiating meetings and consultations, and the frequency of these meetings. The presence of diverse functional areas within teams was a strong indicator of cross-functional collaboration potential. Additionally, the flexibility in meeting initiation—whether by management, team leaders, or any team member—provided insights into the decision-making dynamics within these teams. Lastly, the frequency of meetings, whether regular or based on immediate needs, further demonstrated the teams' ability to coordinate effectively [66]. These criteria collectively provide a robust illustration of the cross-functionality characteristic in self-managing teams.

An analysis of the data concerning the frequency of meetings and consultations involving representatives from different functional areas revealed the following: In the teams of most organizations (58%), there are representatives from various functional areas (Figure 5). This indicates the potential for a high degree of cross-functionality within teams.

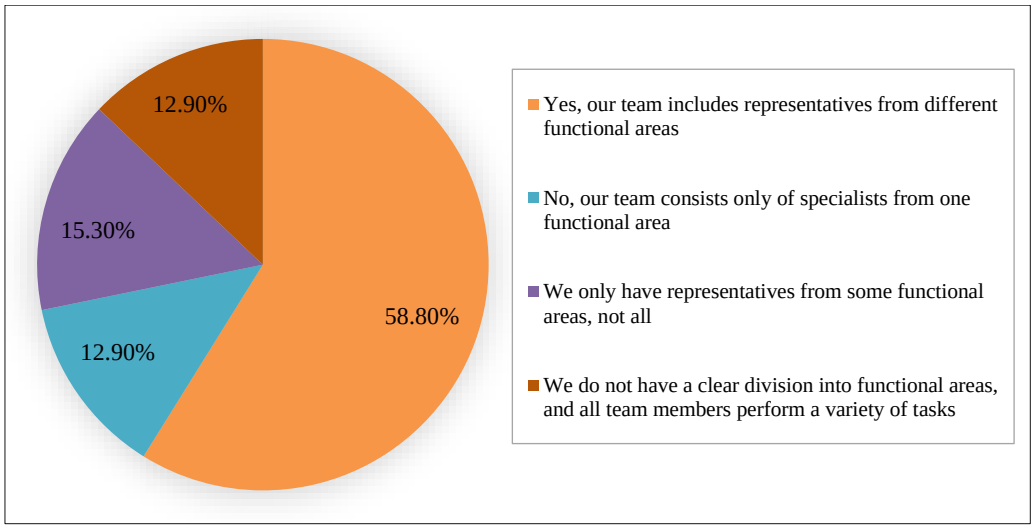


Figure 5. Diversity of the functional areas of team members

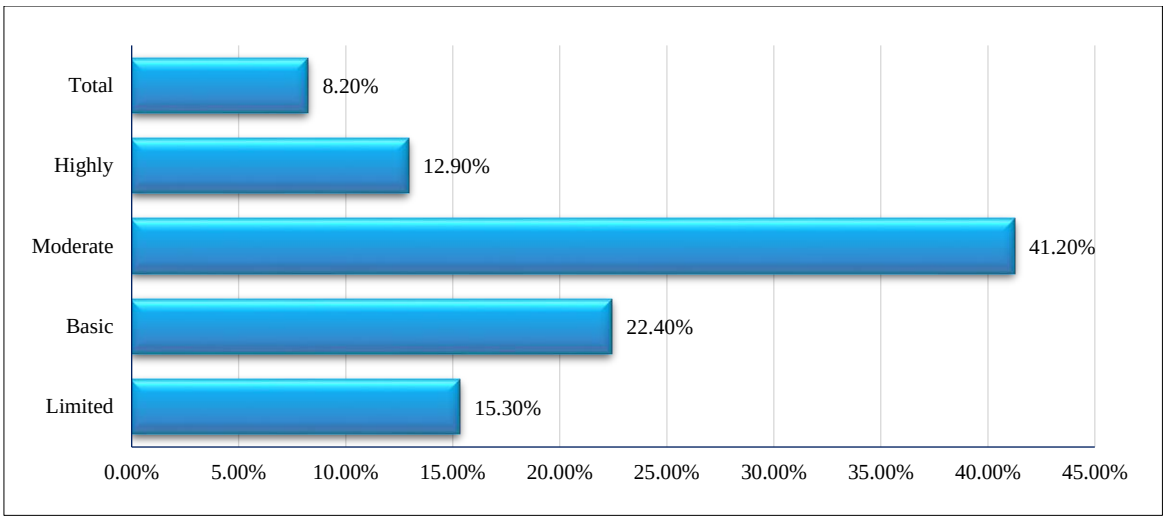
For 30% of the total cases, meetings and consultations with representatives from different functional areas are initiated by either senior management or team leaders. In 24% of cases, meetings can be initiated by any team member, indicating a more decentralized approach and flexibility in the decision-making process regarding meetings. The next most common approach is to hold meetings 'every week', which is characteristic of 24% of organizations. Following this, 'every month' is implemented in 23% of cases. The data underscores a dual nature in meeting initiation, with both centralized leadership involvement and decentralized team member engagement. The varying frequencies of weekly and monthly meetings highlight organizational adaptability, emphasizing the need for flexible structures to enhance communication and decision-making processes within diverse functional areas.

In most teams, interactions occur not based on a predetermined regularity but on an as-needed basis, with 58% of cases having the necessity determined by the team leader. It was surprising to find that smaller teams of less than 5 members and larger teams of over 100 members tend to lean towards regular meetings, whereas teams with 5-20- and 20-100-members practice meetings and gatherings on an as-needed basis.

The data emphasizes diverse approaches to meetings and consultations, showcasing flexibility in teamwork based on needs and management structure. The frequency of cross-functional meetings correlates with higher self-organization in organizations. Active information exchange across functional areas positively influences self-organization levels, especially in organizations with consistent and regular communication.

Collaboration and coordination within teams range from well-organized (36.5% with the response 'It is clear with whom to coordinate and inform') to chaotic (13.1% with the response 'We have chaos'). There are teams with coordinators (50.6%), which may contribute to more effective collaboration.

Respondents, especially team leaders, show varied assessments of cross-functionality, highlighting leaders' crucial role in promoting self-organization. The mix of generalists and specialists is a key criterion for self-organizing teams, with higher flexibility associated with diverse compositions, while limited flexibility results in more homogeneous specialist teams. Based on the data obtained in this study, a conclusion can be drawn about employees' flexibility level (Figure 6). An important aspect is the ability of employees to perform tasks beyond their specialization, which determines their flexibility level.



Note: Limited flexibility: Specialists are focused only on their field.
Basic Flexibility: Some skills in other areas, but with limitations.
Moderate Flexibility: Ability to perform tasks outside of specialty with some limitations.
Highly Flexible: Willingness to take on tasks outside your area of expertise with good adaptability.
Total Flexibility: High level of flexibility and successful execution of tasks in different areas.

Figure 6. Distribution of answers according to team flexibility

Cross-functionality, characterized by the integration of narrow-profile experts and broad-format specialists within a team, is essential for effective team self-organization. Generalists are more likely to transfer knowledge across different organizational settings, whereas specialists benefit more from working with familiar members or on similar projects, which can mitigate the costs associated with switching contexts [67, 68]. Effective collaboration between generalists and specialists requires investment in relationship-building and trust, where such collaboration can lead to improved outcomes [69]. Therefore, fostering a cross-functional team composition may enhance overall team performance by leveraging the strengths of both generalists and specialists. This highlights the importance of cross-functional team dynamics, which, when combined with industry-specific flexibility levels, further clarifies the relationship between team composition and organizational performance.

The diversity of flexibility levels depending on the industry provided a clearer picture, revealing the relationship between flexibility and the scale of organizational operations. In Table 3 the most common answers are given within each industry.

Table 3. Flexibility levels in various industries based on the scale of operation

Industry	Percentage of answers	Flexibility	Scale
Education/Science	20%	Moderate	International
IT/Telecommunication	18.82%	Moderate	International
Production/Manufacturing	10.59%	Basic	International
Mass media/Culture	9.41%	Moderate	International
Agriculture	5.88%	Limited	International
Finance	20%	Moderate	National
Logistics	3.53%	High	International
Healthcare	8.24%	Limited	Local

Note: In the table, the most extensively covered industries are indicated.

Based on the data in Table 3, the following conclusions have been drawn:

- Flexibility Diversity by Industry: The study identified varying employee flexibility levels depending on the industry. "Logistics" exhibited high flexibility, indicating adaptability to diverse tasks. Conversely, "Healthcare" showed limited flexibility, possibly linked to constraints in employee adaptation.
- Moderate Flexibility in Key Sectors: "Education/Science," "Finance," "IT/Telecommunications," and "Media/Culture" demonstrated a moderate flexibility level. Employees in these industries possess specialized knowledge while being prepared to adapt to diverse tasks within their expertise.

- Heterogeneity Across Industries and Scales: Analysis results highlighted differences in employee flexibility levels across regions. For instance, "Media/Culture" at the national level showed moderate flexibility, while "Logistics" at the international level displayed high flexibility. These variations may relate to market characteristics and employee requirements in specific sectors.

The geographic distribution of teams impacts flexibility readiness; international teams show an 80% flexibility level, reflecting adaptation to diverse cultures, while virtual teams exhibit a 58% flexibility level. The degree of flexibility and willingness to perform tasks outside one's area of expertise also holds significant importance. Respondents who assessed their flexibility as 'high' or 'complete' constitute 30% and 14% of the total, respectively.

Responses to the question regarding the ability to make independent decisions without consulting management also correlate with the level of flexibility. In international teams, 80% of respondents have this capability, whereas in national and city/regional teams, 60% and 67% of team members, respectively, can make decisions autonomously.

Measuring co-location gave the following results: 40% of respondents work within one office, 39% work in virtual teams, and 21% work in separate buildings. The frequency of team interaction was used as an indirect proxy for proximity, and the results indicated that approximately 49% of the participants engaged in close interaction or communicated at least once per week. Analysis of the types of information exchange methods reveals that around 75% of respondents utilize up to three methods, while only a quarter employ more than three methods, including the use of online platforms (such as Slack, Microsoft Teams, or Google Workspace, etc.) and project management tools (such as Trello, Asana, or Jira, etc.). It was found that only 32% of respondents in the sample use project management tools in their work. The use of these tools is more characteristic of companies in the IT/telecommunications sector compared to others (p-value=0.1). Conversely, in the education sector, they are rarely utilized. Despite the prevalence of virtual offices and digital solutions, 55.95% of employees prefer not to dismiss entirely physical documents. However, the more intriguing fact is that despite the 2020-21 pandemic, 10.71% of SME employees still exclusively rely on physical documents: paper versions, visual boards in the office, and so on. Regarding employee engagement, it is observed that over 90% of employees are involved in the creation of a product or service in the IT/Telecommunications, Education/Science, Finance, and Healthcare sectors. This may signify a high degree of responsibility and involvement of employees in the production process or the provision of services in these industries. Table 4 represents the most common answers across industries to the questions on the information exchange methods and cross-functionality.

Table 4. Work arrangements and employee engagement across industries

Industry	How does the team collaborate and share information?	What percentage of employees are directly involved in creating the product or service?
Education/Science	Video conferencing: Zoom or Microsoft Teams, etc.	90% or more.
IT/Telecommunication	Project tools: Trello, Asana or Jira, etc. Centralized access to documents: cloud file storage such as Google Drive, Dropbox or OneDrive, etc.	90% or more.
Production/Manufacturing	Physical documents: paper versions, visual boards in the office, etc.	Approximately 75%
Mass media/Culture	Video conferencing: Zoom or Microsoft Teams, etc.	Approximately 75%
Agriculture	Video conferencing: Zoom or Microsoft Teams, etc.	Approximately 75%
Finance	Physical documents: paper versions, visual boards in the office, etc.	90% or more.
Logistics	Physical documents: paper versions, visual boards in the office, etc.	25% or less
Healthcare	Video conferencing: Zoom or Microsoft Teams, etc.	90% or more.

Testing showed no correlation between activity type and autonomy, consistent across diverse firm activities. Teams with fewer than five members lack role clarity, while larger teams exhibit more differentiation. Information dissemination consistency is observed in small and very large teams, attributed to simplicity in small teams and a systemic approach in very large teams. Medium-sized teams may disregard this due to various reasons, including cost considerations. Although significant differences in productivity between co-located and remote teams were not observed, the use of project management tools that connect teams across various locations proved essential. These tools enhance communication and collaboration, ensuring that team productivity and self-organization remain consistent, regardless of physical proximity.

The data gathered from the survey indicate that the initiation of new directions and innovations in work within SMEs in Kazakhstan is primarily driven by management, followed by individual team members, and to a lesser extent, by colleagues (Figure 7).

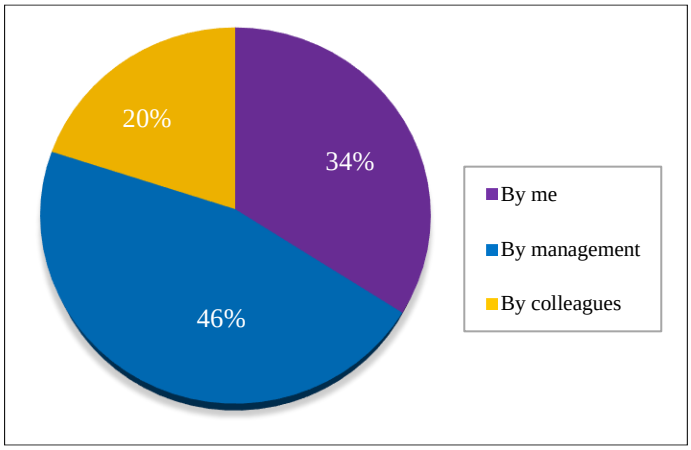


Figure 7. Distribution of innovation initiation sources in SMEs

The distribution of responses highlights the multifaceted nature of innovation initiation within SMEs in Kazakhstan. The data suggest a balanced but management-heavy approach to innovation, with significant individual contributions and relatively lesser but notable peer-driven initiatives. 34% of self-initiated innovations indicate a healthy level of autonomy among employees, which is essential for fostering a culture of continuous improvement and self-management within teams. The predominant role of management in initiating new directions (46%) underscores the importance of leadership in setting strategic goals and driving organizational change. This aligns with the characteristics of self-managing teams where leadership is crucial for providing direction and resources. 20% of colleague-initiated innovations suggest that while there is some level of collaborative innovation, there is potential for enhancing peer-to-peer interaction and collective brainstorming to leverage the diverse skill sets within teams further.

Figure 8 illustrates the distribution of responses regarding preferences in organizing work responsibilities during general meetings. Responses reflect team members' perceptions of their roles in task allocation, ranging from individual initiative to expectations from management. The predominant response indicating that 'Everyone already knows their parts of the work' suggests a proactive approach where team members possess clarity and autonomy in their responsibilities. Conversely, the response 'Team members take the initiative to define their responsibilities' underscores a collaborative ethos where individuals proactively shape their roles within the team. Lastly, the response 'Everyone waits for the management to assign each person's part of the work' highlights a reliance on hierarchical structures for task delegation. These responses collectively illustrate diverse perspectives on team autonomy, initiative, and hierarchical reliance in organizational decision-making processes.

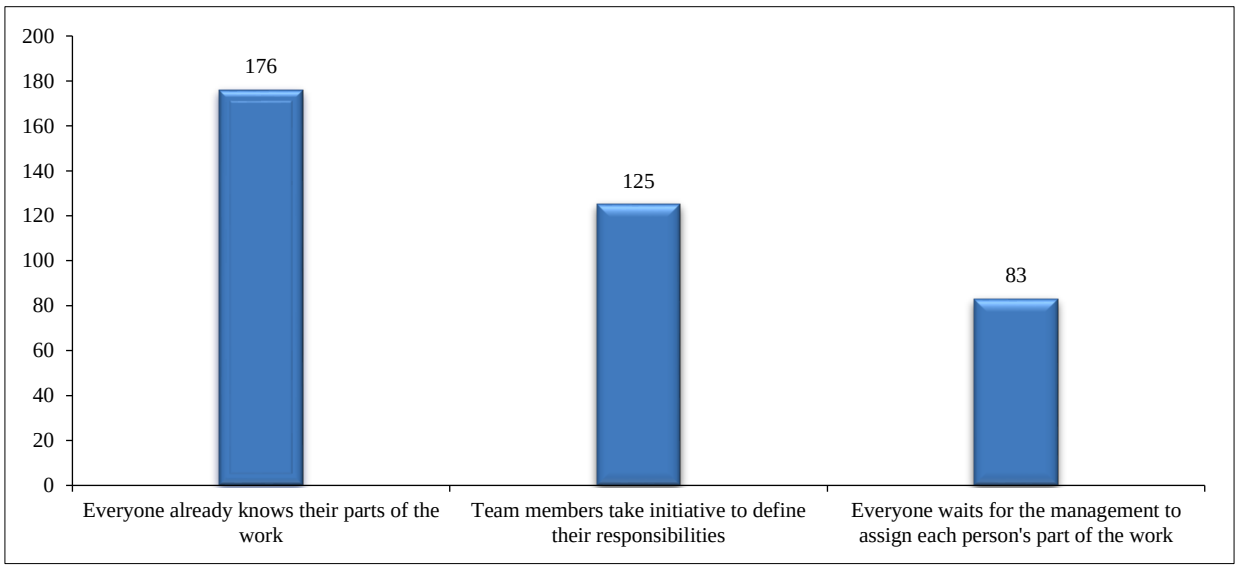


Figure 8. Distribution of responses on planned work responsibilities

The challenge of achieving significant autonomy lies in the low motivation of the team. Survey responses indicate a discrepancy: some respondents state that everyone waits for management to assign tasks, yet the same respondents claim they have the authority to distribute tasks. Such conflicting answers are typically given by company managers. Excluding these contradictory responses, it becomes evident that, in most cases, teams where everyone waits for task distribution possess a certain degree of autonomy in decision-making on matters such as scheduling and process improvement. These

respondents report a low to moderate focus of the team on achieving common goals. Combining these findings, it can be concluded that teams with lower motivation tend to have a lower level of decision-making autonomy.

In this survey, due to a small sample size, findings about the link between team size and focus on the company's goals are ambiguous (p-value is 0.1 to reject the null hypothesis of no correlation between team size and focus on the company's goals). The result suggests the bigger a team, the more workers are concerned about reaching a goal, possibly due to a mature and formal management system in larger companies. Concentration on achieving the goal does not show a connection with work experience, implying that more experienced workers are not necessarily more motivated. Given that teams with up to 20 members and those with more than 100 members exhibit a relatively high degree of self-organization, it can be concluded that smaller teams benefit from greater transparency, simpler task distribution processes, and more straightforward communication. In larger groups (over 100 members), self-organization is achieved through well-defined procedures and rules, and more systematic management. Medium-sized teams (approximately 20 to 100 members) likely suffer from the lack of advantages found in both smaller and larger teams. For these teams, solutions might include breaking down the team size based on performance criteria or developing a robust quality management system. To reduce errors, more observations are needed. However, it is possible that even with an increased sample size, we might obtain similar borderline results due to the heterogeneity in the observations. In some large teams, the degree of autonomy and motivation may decrease because of a reduced sense of individual contribution to the overall result and the difficulty in delineating the direct link between an employee's contribution and the team's overall performance. This issue is compounded by an underdeveloped quality management system, leading to challenges in task allocation, monitoring, team motivation, and so forth, ultimately resulting in lower self-organization.

In teams of up to 20, members either know their tasks or take initiative. In teams of 20 to 100, individuals are less inclined to the initiative, follow a regimen, or await leader instructions. Larger teams in medium-sized businesses exhibit diversity, with some relying on superiors' task expectations, others following regulated processes, and some being initiative-driven.

5. Discussion

In the exploration of the advantages conferred by Agile management technologies, we encountered certain conditions for their implementation, one of which is the presence of a self-organizing team. A targeted search for the characteristics of self-organizing teams in the literature allowed us to identify key traits such as cross-functionality, diversity, motivation, and co-location, which are intertwined with trust and autonomy. Self-organizing teams tend to be successful. Grounded in this understanding and recognizing it as an essential component for the prosperous development of businesses, particularly in the context of small and medium enterprises, this study set out to investigate whether teams operating within the domain of SMEs in Kazakhstan can be categorized as self-organizing.

Results show most teams are cross-functional with diverse skills. Two-thirds either hold regular meetings or show initiative in team discussions. Trust, measured by information-sharing, is at 29.4%, with respondents often awaiting management directives for task allocation. Only 15% strictly follow superiors' tasks, and 29.4% act according to management directives in non-standard situations. Notably, 38% reported limited flexibility in tasks beyond their specialization. The data analysis indicates that the cross-functionality of teams varies by industry. IT/Telecommunications and Education/Science industries exhibit more prevalent cross-functionality, while Finance and Production/Industry show diverse results with teams having varying degrees of cross-functionality. Most organizations have cross-functional teams, but the efficiency of collaboration varies based on the specific organization and industry. Some operate nationally in Services/Consulting, IT/Telecommunications, Finance, and Production/Industry, while international presence characterizes Education/Science, Agriculture, and Production/Industry, suggesting global market involvement. The results underscore the importance of adapting cross-functional teams to industry specifics and organizational scale.

The diversity of flexibility of teams across industries urges managers in particular industries like Production/Manufacture and Agriculture to account for employee flexibility in training, development, and workflow organization. Thoughtful consideration in these areas can optimize resource management and align with organizational goals, fostering adaptability in dynamic market conditions. It is also important to highlight the heterogeneity of results: some teams may be highly cross-functional, productive, and self-organizing, while others may encounter limitations in these aspects. This heterogeneity underscores the significance of individual contexts and the specific needs of each organization and industry. In the context of the discussion on the implementation of self-managing teams in small and medium-sized enterprises (SMEs), a key takeaway is the need to create high-performing teams. This is a complex task that requires effective management of human and strategic aspects, the creation of a collaborative environment, and the use of modern strategies. As Kaliyeva et al. [70] illustrate, factors such as leadership/coaching, and delegation play an important role in building successful organizations.

The analysis of the presented data allows the identification of significant trends in the organization of work and employee engagement across various industries. It has been observed that the use of online platforms and video conferences is most prevalent among representatives of organizations in IT/Telecommunications, indicative of the digital flexibility and technological orientation of these sectors. It is noteworthy that the application of project management

tools is also present in manufacturing and industrial companies, where effective project planning and management are crucial; however, the use of these tools is secondary, with a greater reliance on paper documents. In this context, the high percentage of choosing project management tools indicates a need for systematizing and structuring work processes.

Motivation in SMEs can be significantly influenced by the encouragement of individual initiative, as evidenced by the 34% of responses indicating that new directions and innovations are initiated by employees themselves. This highlights the importance of creating platforms and opportunities for employees to share and implement their ideas, thereby fostering a culture of innovation. Additionally, the fact that 46% of innovations are driven by management underscores the critical role of leadership in guiding and motivating the workforce. Strong leadership not only drives innovation but also creates an environment that rewards initiative at all organizational levels. Furthermore, with 20% of new ideas originating from colleagues, it is evident that enhancing collaborative efforts among team members can maximize the potential for team-based innovation. This can be achieved through team-building activities, cross-functional projects, and open communication channels. In conclusion, the study suggests that a balanced approach to innovation within SMEs, involving both managerial leadership and individual contributions, is essential for continuous development and success. Also, findings about team motivation underscore the significance of fostering a balanced organizational culture that encourages both individual accountability and proactive team collaboration in project management contexts.

Even though other authors have identified various characteristics of self-managing teams, often using different terminologies, the core attributes of cross-functionality, diversity, motivation, and co-location remain prevalent. For instance, competencies such as self-efficacy and proactive personality [61] and the paradoxical nature of cross-functional communication [63] highlight the significance of cross-functionality and diversity. Similarly, the critical role of motivation in team effectiveness [55] and the importance of team spatial arrangements for enhanced collaboration [56] emphasize motivation and co-location. These findings align with the primary characteristics identified in this study, reinforcing their relevance across various contexts and terminologies. Additionally, Fachrunnisa et al. [71] highlight that digital adoption requires agile leadership and strategic flexibility, which is consistent with the context of self-managed teams. Thus, the results of the presented studies are consistent and confirm the relevance of using self-managed teams in modern business.

6. Conclusions

The study indicates that the majority (about 2/3) of SME teams in Kazakhstan demonstrate characteristics of self-managing teams, namely: cross-functionality, diversity, autonomy, and motivation. Based on the survey data from SMEs in Kazakhstan, key conclusions about team characteristics and self-organization are evident:

- Cross-functionality: Teams involve members from diverse functional areas, fostering collaboration across marketing, finance, and product development. This widespread interaction is vital for creating adaptable teams capable of handling complex tasks.
- Generalists and specialists mix: Survey results on employee specialization and task flexibility reveal varied combinations within teams. Some include adaptable specialists, enhancing flexibility, while others may have members with limited flexibility, suggesting potential areas for skill development.
- Team performance and efficiency: Factors like co-location of team members and autonomy in decision-making significantly influence productivity. Teams operating in different locations may face remote work challenges, while decision-making autonomy contributes to task execution efficiency.

Regardless of activity type or organizational duration, team capacity for self-organization remains consistent. Team size, however, influences self-organization, with differences observed in very small (less than 5) and very large (over 100) teams. Overall, the research underscores the key role of self-organizing teams in adopting Agile management technologies, highlighting critical elements for successful implementation.

An audit of SME teams in Kazakhstan reveals a mix of strengths and challenges. While many teams show cross-functionality and diverse skills, issues exist in information sharing, task allocation, and flexibility. A notable proportion waits for management direction in decision-making, suggesting a gap in achieving full autonomy.

The study underscores the importance of fostering cross-functionality, integrating a mix of generalists and specialists, and enhancing decision-making autonomy within SMEs. These practices are essential for promoting collaboration across diverse functional areas and improving adaptability. To optimize these aspects, SMEs are encouraged to improve information sharing and task allocation, while also addressing any deficiencies in decision-making autonomy. Leadership should prioritize delegation and innovation, and avoid micromanagement, to effectively enhance team performance and flexibility.

In the broader context of self-managing teams in SMEs, the study underscores the complexity of building high-performing teams, emphasizing the importance of leadership, delegation, innovation, and avoiding micromanagement. Acknowledging limitations, such as a small sample size, the study recommends cautious interpretation of results, with an error margin of approximately 10-11%. A larger sample could provide more conclusive findings for future research.

7. Declarations

7.1. Author Contributions

Conceptualization, Sh.S., A.A., and S.S.; methodology, Sh.S.; software, A.A.; validation, Sh.S., A.A., and S.S.; formal analysis, A.A.; investigation, Sh.S.; resources, Sh.S.; data curation, A.A.; writing—original draft preparation, Sh.S.; writing—review and editing, A.A. and S.S.; visualization, S.S.; supervision, S.S.; project administration, A.T.; funding acquisition, A.T. All authors have read and agreed to the published version of the manuscript.

7.2. Data Availability Statement

The data presented in this study are available in the article.

7.3. Funding

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7.4. Acknowledgements

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7.5. Institutional Review Board Statement

Not applicable.

7.6. Informed Consent Statement

Not applicable.

7.7. Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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