

D I N N O S

Diversity Innovation Support Scheme

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Diversity Innovation Support Scheme

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1. Executive Summary

Creativity and Innovation in Small- and Medium-sized Enterprises: Age Diversity as a Risk and an Opportunity

Due to demographic changes all over the world and related retirement policies, age diversity in businesses is constantly increasing. At the same time, companies face the challenge of a fast-changing economy that requires quick adaptations and innovation. Especially in small- and medium-sized enterprises (SMEs), for whom innovations are among main drivers for success, age diversity can have a positive and negative impact. On the one hand, age diversity can impair creativity and innovation and associated organisational performance and growth. More specifically, age diverse work teams are more prone to conflicts and discrimination, limiting their effectiveness. On the other hand, specific boundary conditions can alleviate or even reverse the negative impact of age diversity on creativity as well as innovation. Knowledge and experience of older employees combined with innovative ideas, new ways of problem-solving and motivation of younger employees can ensure competitive advantage through generation and implementation of novel ideas for products and processes in SMEs.

Leaders and Managers of SMEs can create such beneficial boundary conditions. Flat hierarchies, positive communication, and leadership approaches, which focus on ethics and social responsibility can motivate members of age diverse teams to share their knowledge with each other. However, because implementing new HR strategies can lead to substantial difficulties for SMEs especially those without a well-staffed HR department, policy makers need to provide structural support to support SMEs. This can be done via networking events, informational materials as well as funding for the development and implementation of Innovation Support Schemes.

Recommendations for SME's

- High age appreciation communicated by the senior management and every leader
- Positive climate combined with flat hierarchies and shared responsibilities
- Diverse project teams with a short-term focus for highly innovative tasks
- Leadership trainings to support leaders in their function as role models and influence team climate
- Educative sessions about biological, motivational, and cognitive processes associated with ageing
- Cognitive trainings to support the potential of individual employees

Recommendations for Policy Makers

- Establish national as well as international networks to share best practices
- Organize events and workshops to increase the awareness of age diversity as a challenge
- Connect innovation agencies, researchers, consultants, and entrepreneurs to integrate different perspectives and develop best practices
- Support the development of Innovation Support Schemes specifically for SMEs
- Disseminate evaluated training guidelines and materials to relevant stakeholders



2. Policy Brief

Creativity and Innovation in Small- and Medium-sized Enterprises: Age Diversity as a Risk and an Opportunity

2.1. Demographic Change as a Critical Challenge

Due to demographic changes all over the world and related retirement policies, age diversity in businesses is constantly increasing. At the same time, companies face the challenge of a fast-changing economy that requires quick adaptations and innovation. Especially in small- and medium-sized enterprises (SMEs), for whom innovations are among main drivers for success, age diversity can have a positive and negative impact. On the one hand, age diversity can impair creativity and innovation and associated organisational performance and growth. More specifically, age diverse work teams are more prone to conflicts and discrimination, limiting their effectiveness. On the other hand, specific boundary conditions can alleviate or even reverse the negative impact of age diversity on creativity as well as innovation. Knowledge and experience of older employees combined with innovative ideas, new ways of problem-solving and motivation of younger employees can ensure competitive advantage through generation and implementation of novel ideas for products and processes in SMEs. Leaders and Managers of SMEs can create such beneficial boundary conditions. Additionally, policy makers need to provide structural support to support SMEs. Hence, SMEs and policy makers need to understand possible links between age diversity and innovation, in order to be generate sustainable economic growth in the face of demographic change, instead of falling to the risks.

2.2. Understanding How It Works: Links between Age Diversity and Innovation

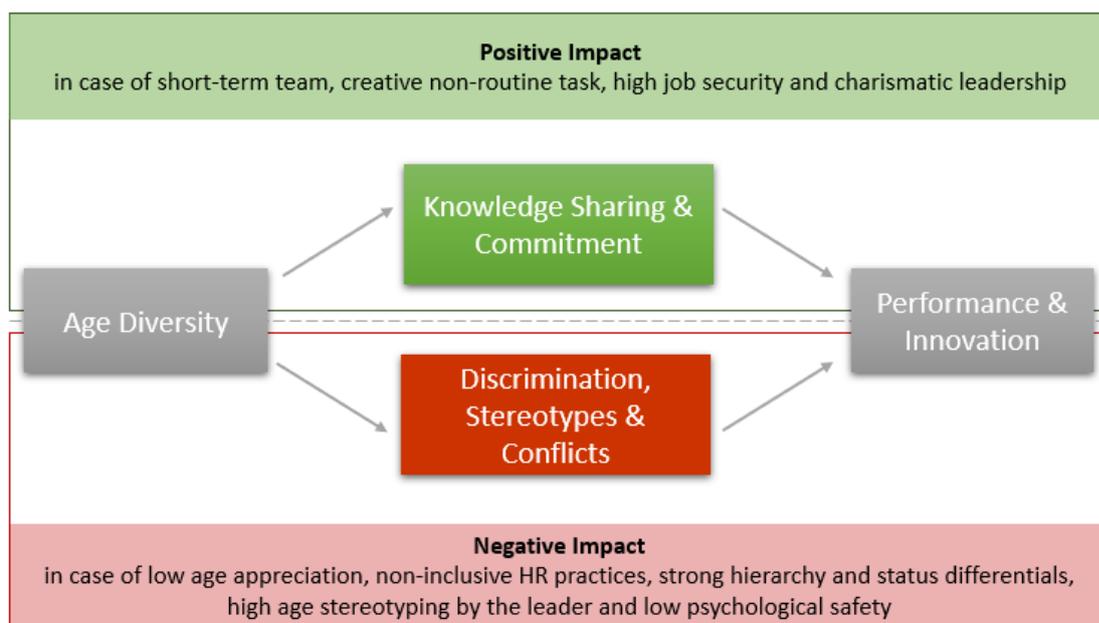


Figure1: Overview about selected underlying processes and boundary conditions for the effect of Age Diversity on Performance and Innovation



2.2.1. Stereotypes and Conflicts

The influence of age diversity on innovation represents one of the most critical areas in current global challenges and has received increasing attention among practitioners and research alike. Scholars have focused on multiple processes to explain negative as well as positive effects of age diversity. For example, individual job attitudes and behaviors (e.g. commitment and communication) as well as group dynamics (e.g. cooperation or discrimination) link age diversity to team effectiveness. On the individual level an high age is associated with declines in cognitive abilities and flexibility, for instance shown in reduced memory capacities or shorter attention spans^{7,12}. Such cognitive abilities are necessary to generate creative ideas and innovations¹⁰ through logical reasoning that combines different pieces of information and explorative thinking which creates new and unusual connections between those. As a result, older employees may be increasingly less able to keep up with fast-paced changes and generate innovations.

In addition, these age-related changes increase the differences between age groups leading to more challenging social interactions¹¹. Difficulties in communication and relations, such as mutual lack of respect and -shared goals, can lead to more conflicts and stereotypes between team members as well as discrimination^{9,11,13,16}. High age diversity, which is evaluated as unfavorable for team functioning, reduces affective commitment and motivation to work towards organisational goals leading to reduced effectiveness⁹. Accordingly, negative effects of high age diversity were mainly found for organisations without an age-inclusive senior management, that does not address needs and expectations of different age groups equally. Moreover, companies characterized by steep hierarchies and no delegation of responsibilities to its employees^{9,11} also experience negative effects of age diversity. In line with these findings, research on team composition also reveals that strong status and power differences between team members or strong age stereotyping by the leader precede a reduced performance when age diversity is high^{9,15}. A lack of psychological safety, which is characterized by fear to be embarrassed or punished when speaking up or asking questions, additionally strengthened negative effects of age diversity on innovation¹⁶.

2.2.2. Knowledge Sharing and Commitment

A different theoretical perspective conceptualizes age diversity as a beneficial contingency, which allows for integrating team members' different knowledge areas and skills. Age diverse teams with different backgrounds and perspectives are often seen as necessary for the development of innovative ideas. In light of increasing importance of the older employees, it is of critical relevance to not only include perspectives of younger, but also older employees when solving demanding challenges and developing innovations. Older employees have a different perspective on current developments and can offer unique contributions, especially for topics that emerge based on demographic changes (e.g. fostering mobility). The high variety in knowledge, skills, abilities and other competencies of team members can facilitate innovation processes and, thus, can lead to an increased effectiveness at the team and organizational level^{3,16}.

These informational processes usually come into effect for creative non-routine tasks¹, that require a broad knowledge base and multiple perspectives. Additionally, in accentuating the importance of psychological safety, a high perceived job security fosters positive effects of age diversity on creativity and innovation². Age diversity seems to show more positive effects for short-term teams⁵, which have a stronger focus on the task itself than on relationships. Hence, project teams and agile management techniques, often applied in SMEs, provide a good starting point to ensure the success of age diverse teams. Besides these contingencies, age diversity shows its positive influence when team members are characterized by a high need for cognition, meaning that they enjoy engaging in cognitive tasks⁶. These employees rely less on accessible heuristics and stereotypes, which can also be trained and emphasized within SMEs.



2.3. Recommendations

2.3.1. What SMEs Can Do

After understanding different processes that link age diversity to creativity and innovation, there is a question on how SMEs can benefit from an age diverse workforce? Both, negative and positive effects unfold under different contingencies, as briefly described above. While some characteristics like the sector or size of the company are difficult to change, management and HR practices provide a good starting point to overcome negative effects of age diversity and foster its positive effects.

HR should approach all age groups with an age-inclusive management, meaning that different needs and motivations of each age group should be addressed equally. A low hierarchy and shared responsibilities can enable fair communication between all team members, which goes along with greater knowledge sharing and positive relationships. If possible, age diverse teams should be compiled so that high status and power differences between team members are reduced. It can also be beneficial to establish project teams with shorter time frames for specific creative tasks that require high innovative performance. Management can foster a transparent communication and long-term planning to improve perceived job security and a positive climate. Important values like respect, equality and diversity support should be implemented in the organizational culture. Furthermore, it should be communicated by both HR- and team leaders that all age groups are equally appreciated.

As role models, leaders should demonstrate high age appreciation and refrain from adopting any kind of discrimination or stereotyping. Leadership trainings can support a reflection and modification of stereotypes and behaviors. An appreciative communication and higher empathy to understand the needs and perspectives of team members can lead to a better team climate and reduce conflicts. Certain aspects of these are already included in servant leadership – a leadership style, which focuses on putting subordinates needs first. This leadership approach could serve as a base for leadership development¹⁴. More specifically, servant leaders establish flat hierarchies and share power, enabling a positive culture and supporting rewarding work environments. In addition to this leadership style, multiple interventions and programs can address employees directly. Informational material about biological, motivational, and cognitive processes of ageing can increase employees' knowledge in relevant areas and in turn help prevent stereotyping. A cognitive training for older employees can help to maintain cognitive abilities and reduce the discrepancy between younger and older employees^{4,8}.

2.3.2. Structural Support from Policy Makers

Even though there are multiple opportunities to facilitate positive effects of age diversity, implementing a new communication strategy or leadership style can lead to substantial difficulties for enterprises without a well-staffed HR department. SMEs fall in this category and, at the same time, strongly rely on their innovative performance to gain competitive advantage. Hence, structural support by the government or other policy makers is needed. Based on the globalization and increased competition as well as collaborations between international partners, it is important to provide assistance on a national as well as an international level, for instance through national governments and the European Union.

As a first step, it is of critical relevance to increase the awareness of upcoming challenges resulting from high age diversity within SMEs. A comprehensive summary of relevant information, that addresses individual ageing as well as social dynamics, is necessary to enhance the understanding of underlying processes. The informational material should be delivered via news articles, flyers as well as online-based channels in order reach a broad audience. Network events and



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workshops can be used to connect entrepreneurs and help to provide a broad knowledge base from which everyone can benefit.

However, the group of relevant stakeholder encompasses not only entrepreneurs and SMEs, but also innovation agencies, researchers, and consultants. Researchers need to support the development and evaluation of relevant training components as well as overarching Innovation Support Schemes. The integrated knowledge of researchers and innovation agencies can enhance the practical application of academic results. Together with entrepreneurs as subject matter experts, these stakeholders can develop innovation support schemes that address the challenge of age diversity in an ideal way. Well-founded guidelines for relevant HR practices and leadership trainings need to be developed and provided to the target group of SMEs without introducing major costs. Policy makers not only have the responsibility to initiate such projects, but also to provide funding on different levels. Suitable research projects could receive financial support as well as SMEs who aim to invest in the development of its leaders and employees.

2.4. An Exemplary Project: Diversity Innovation Support Scheme - DINNOS

In an attempt to adopt and foster beneficial impacts of age diversity on innovation, DINNOS aims to develop an Innovation Support Scheme for SMEs. The EU funded project will provide access to guidelines for all relevant stakeholders and, thus, support SMEs with their development in order to use age diversity as a source for organizational success. A first version of the Innovation Support Scheme, which DINNOS will draw on was already implemented and piloted in a previously conducted research project in Germany. This scheme included interventions for individuals and leaders. At the individual level, a cognitive ability training was introduced to reduce the decline of cognitive abilities, such as reduced memory capacity or shorter attention spans, and in turn increase the generation of innovative ideas particularly for older employees. Moreover, a leadership training was introduced, which emphasizes on reducing age stereotypes and associated conflicts and enhance appreciation of age diversity. In light of increasing research and knowledge about the influence of age diversity on innovation, this scheme will be adapted and evaluated in Germany as well as the UK. For the evaluation, the scheme will be implemented for 300 SMEs and 900 individual employees. Hence, the research project DINNOS aims to provide an academically rigorous and well-evaluated Innovation Support Scheme, which has the potential to significantly contribute to achieving the desired output of SMEs with a strong innovation focus as base for a successful economy.



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