



European Survey Analysis Summary Report

Issues faced by SME Managers when considering the
introduction of robots/AI into their organisation

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Introduction

The Robots & SMEs project will be developing (to be launched in August 2021) a series of training and support tools for SME Managers to enable them to assess the value of robots for their business development and sustainability and then effectively introduce them.

The first phase of the project has been to study and determine the issues faced by SME managers when considering the introduction of robots/AI into their organisation and make recommendations as to what strategies they need to adopt to gain the best advantage from their introduction.

To identify the issues an on-line question comprising 26 questions, intended for SME Managers that aimed to analyze and contextualize the introduction of robots and AI in their business, assessing their current state and the opinion of SME Managers in this regard. They were asked to respond according to their direct experience or specific knowledge regarding the topics addressed. The method for collecting answers was Google Forms.

As a companion to this Survey Report the project undertook a desk research exercise that was carried out in order to ascertain the state of the art of robots/AI introduction in Partner countries (which can be downloaded from www.robsme.com).

Conclusions

The total of 137 responses were received from 12 countries – the questions and detailed analysis of the answers can be found in the full Survey report (which can be downloaded from www.robsme.com).

The first conclusion that can be drawn from the Survey results is that In general, in all the countries surveyed there is an opinion that the introduction of robots and AI technology will affect the 'human' workforce in respondent's organizations. The most verified answer in four out of the five countries was Somewhat Agree (even though Ireland's most chosen option was Strongly Agree), which allows one to conclude that, although there is a notion that the robotization of all economic devices under study is inevitable, there is not a very high degree of certainty on behalf of SME Managers. This may be due to the type of business of each one (which may require a more "traditional" or manual modus operandi, which cannot be replaced by a machine) or some uncertainty regarding the difficulties of companies in each country in gather all the conditions to implement robotic and AI systems. However, with the concrete purpose of the question being to assess the impact on the human workforce, respondents may have expressed the fact that the human workforce of their organizations is, in a way, technically and socially prepared to deal with the arrival of the machines.

The second conclusion that can be drawn is that SME managers, in general, believe that robotic and AI systems will have a significant impact on the efficiency of their companies, with several countries surpassing 30% in Agree and Strongly Agree responses and not many negative responses (none has exceeded 20%). This means that SME managers are aware that technology can make their productive and operational process more effective, making room for beneficial investments in other areas, more linked to customer support, human relations, creativity, advertising, etc.



The third conclusion is that most SME Managers are not fully aware of the potential impact of robots and AI on their workforce, since most voted response in all countries is Agree, with negative responses having very little expression. The feeling that their peers are still at a rudimentary stage concerning knowledge about robots and AI may lead to some skepticism regarding the adoption of these instruments in the various countries surveyed.

The fourth conclusion that can be drawn is that most respondents think they have staff within their organization with the knowledge and insights they need to help to implement innovative technologies in the workplace, which is proven by the considerable amount of Agree and Somewhat Agree responses. This indicates that the difficulties in implementing robots and AI in the respondents' organizations may be related to factors other than the lack of knowledge on the part of the human workforce (possibly financial).

The fifth conclusion is that in all countries there was an agreement regarding the receptivity of SME managers to be provided with an online mentoring service to help them understand the issues surrounding robotics and artificial intelligence (as well as in which way they could influence their business), including a best practices guide with real examples from other companies, which ends up validating the purpose of the project itself. The maximum percentage of the sum of negative responses did not exceed 36% in the worst-case scenario.

The sixth conclusion. When asked if human impact factors must be considered when making decisions about the implementation of technology, as the efficiency gains provided by robots and AI cannot be compared to employee experience, skills and other people factors, most SME managers were clear, being Agree the most answer in three out of the five countries.

The seventh point to underline is that most of the surveyed SME managers feel that robotization and AI will affect their business in the next 5 years. The most voted answer in the five countries was "Somewhat Agree", which reckons some doubts (they probably feel divided between financial conditions to implement such technologies, government support and the business's own propensity to adopt them).

The eighth conclusion shows that there is a predominance of negative responses (68% in Portugal, 85% in Bulgaria, 73% in the UK, 88% in Slovakia and 79% in Ireland), which means that the majority of SME managers surveyed do not consider that Robotization and AI are a future threat for their business. In this chapter, it would be interesting to discover the reasons for this disagreement, since it may go through several factors (work that can only be done by humans, lack of financial power to invest, dissenting government policy, etc.). When SME Managers were asked if their business is suitable for introducing robots/AI to replace humans in certain processes, they stated that although there is a balance between negative and positive responses in most of the countries surveyed, in Bulgaria, UK, Slovakia and Ireland the percentages of positive responses ended up exceeding, although the most voted answer was "Somewhat Agree" in all of them, except in Ireland (Agree got 44% of the votes). These results allow one to better understand the answers given in other sections of the questionnaire, as they grant to separate in a certain way the businesses that simply will never be able to adopt new technologies given their human nature.

Then, when asked if the introduction of robots/AI could give your company a competitive advantage over other companies in its sector, apart from Portugal, the majority of respondents believe that the introduction of robots/AI could give their company a competitive advantage over other companies in its sector. In regard to SME Managers opinion when asked if they believe that the associated consequences to the labour forces make the introduction of robots/AI troubling, the majority of the respondents agree that there are other factors that

could compromise the arrival of technologies to their companies apart from workforce issues. Finally, when asked if this survey was worth their time and attention, SME managers agreed that it was.

The third section of this questionnaire (open-ended questions), requires broader reflection by SME managers, was created in order to analyze their opinion in more detail regarding some other aspects in regard to the adoption of robots/AI by SMEs.

The first conclusion was that most of the respondents think that there are opportunities offered by emerging technologies to both evolve their business model and to improve the relationship with their employees. Among the examples given, computerized machinery, robotization of production processes, medical robots, co-bots, chatbots and AI in decision-making processes were the most referred examples of opportunities offered by this newly arrived emerging technologies. It should be noted that these technologies across several sectors of the economy and different branches of business, which proves that all sectors can benefit from these technologies, according to the respondents.

When asked if respondents' companies already started implementing steps towards digitalization, robotization and/or AI, it can be observed that most of their SME managers have not yet started implementing steps towards digitalization, robotization and / or AI. Of the cases where this process has already started, the examples given went through buying and using automatic CNC machines, AI to fine-tune customer preferences, internet-based products, data processing, Computerization of production control, robotized production systems, etc. SME managers were asked what were the three biggest barriers the implementation of robots and AI in their business. According to the majority of them, this is mainly linked to lack of information regarding funding and legislation, lack of qualified workforce, lack of suitability of the business and lack of awareness of opportunities.

In regard of training/mentoring on robotization/AI in the inquired companies, most of the SME managers stated that training would be really important in order to form current and future employees, as they would become more aware and skilful regarding new technologies to keep up with markets' constant demands. Since most of the countries stated that there are skill gaps due to poor training in schools/universities, this is also something that should be addressed by the project. The project will offer SME managers a guide to useful training tools.

Concerning the existing policies and available government support towards SMEs' robotization, the high number of Don't know / No opinion responses should be highlighted, which can easily be dissolved into negative responses by SME managers when asked if they are aware of existing policies and available government support towards SME's robotization or if the policymakers in their countries are striving to stimulate its implementation in SMEs. Most responses from the four countries focused on the same points: policymakers are not striving enough in order to implement new technologies in the workplace, also there is a high degree of ignorance on behalf of SME managers regarding the existing legislation and support.

The same question was applied to EU policy concerning robots/AI implementation and, when asked if they were aware of it and if the existing policies could be improved and more completely articulated to SMEs, the respondents stated that they are not aware of the EU policy concerning robots / AI implementation in SMEs. Regarding measures they feel should be taken in this matter, they state that EU should include more robots / AI development funding programs, more investment in training programs, tax benefits for companies using new technologies, more informing events and workshops in companies, among others.



The last section was dedicated to finding out if the respondents would be interested to be kept up to date with the project developments and if so, they were given the opportunity to opt-in to the project contact database. The majority of respondents (62%) agreed and are now ready to receive a deeper approach on behalf of the project team.

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