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SUMMARY

Innovation has always been one of the factors driving the growth of enterprises, but its sources discerned only within the organization. Internet network has accelerated the process of looking for the source of innovation among external resources. What is more:

- the increasing popularity of open innovation platforms such as *Innocentive* (which contains over 2 000 external business problems, for which over 365 000 of registered users sent over 40 000 solutions);
- steadily increasing the number of projects financed by crowdfunding through such platforms as *Kickstarter* (99 311 fully funded projects [277,422 total], more than \$2 billion in accumulated funds for their implementation, more than 10 million active users);
- increase in the number of projects with characteristics of open innovation (aimed at the involvement of stakeholders in the processes of innovative businesses and to strengthen relationships with them) among companies from different sectors in the world, for example: *IdeaStorm* (Dell), *MyStarbucksIdea* (Starbucks), *Henkel Innovation Challenge* (Henkel), *iFixit*; or Poland: *Bank of Ideas* (BZ WBK);
- increase of the number of start-ups in Poland (about 2400 in 2015 and 2700 in 2016);
- global success of polish start-ups like BRAND24, Call Page, G2A. LiveChat;
- and the growing interest in the concept of business models in Poland on many levels (government, academic, business);

became the object of attention of theoreticians and practitioners of management in the past few years, including the author of this work. However, despite the growing interest in the concept of open innovation in international scientific literature, there are no studies on the use of open innovation in start-ups (especially through the prism of business models), which is a main gap in research, which has become a reason to undertake this dissertation research topics. The main objective was to determine whether Polish start-ups carry out activities aimed at the creation and implementation of innovations in an open manner, and whether, why and how they use such categories of innovation.

To achieve its objective, and comply with the generally accepted rules for doctoral dissertations, adopted following the structure of the work:

- In Chapter I. the essence of open innovation in the strict sense and broad sense, a review of the definition, as well as characteristics the activities most frequently identified within the open innovation paradigm were shown. The second part of the chapter is devoted to a start-up, as companies with particular potential for openness and its importance from the point of view of its success.
- In Chapter II. an overview of the nature and definition of the business model, as a concept, in which start-ups are somewhat submerged shown. It also presents

arguments according to which the business model may be the outlook for the analysis of start-ups at the level of open innovation. Moreover, it was an attempt to show the differences between the business model and strategy, subjecting both wide-ranging review of the definitions, similarities and differences.

- In the first part of Chapter III. There is a presentation of the general principles of research methodology at the level of management sciences. Another part of the chapter is presenting the methodology of own research, and the key element of the chapter is presentation and analysis of own research: CAWI technique on deliberately selected sample of 112 Polish start-ups and semi structured interviews (n = 11).
- Based on the results of own research in Chapter IV. There is presentation of recommendations for business practice at the level of creation and implementation of open innovation.

As the key findings of the study it can be demonstrated that the vast majority of surveyed start-ups creates or is planning to create innovations in an open manner at the level of marketing or product innovation, which is confirmed by elements of business models, in which the most of surveyed companies implement such activities which fit within the paradigm of open innovation (relations with clients, channels and value proposition). The most common practice is co-design, so the design together with stakeholders (most potential clients). Least likely crowdsourcing and crowdfunding, which is a direct result of socio-economic factors in Poland. The reasons for which audited entities usually take open action, was to identify new growth opportunities, access to new technologies and know-how, and to reach the right customer needs. Among the mentioned obstacles to carry out open actions the respondents mentioned mostly a problem with finding partners for cooperation, for which a direct solution is actively involved in the cluster initiatives. Frequently indicated benefits of an open approach, are the acceleration of the process of creation and implementation of innovation and an increase in the number of partners and customers. The main task of the public authorities is to give a direct example for openness, by creating or conducting all kinds of open platforms, in which a broad group of stakeholders of different sectors and regions can exchange knowledge and problems.