

Processes of improving business models of road transport companies in the context of technological conditions

Summary

Doctoral Dissertation

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The main objective of the study was to determine the impact of applied technologies on changes in business models of transport companies which conduct business activity in the field of road transport of goods. As part of the adopted main objective of the doctoral dissertation, three specific objectives were specified. They concern the analysis of the importance of the business model for the management of a transport company, the definition of existing sustainable business models in the road transport of goods, and the definition of determinants and their importance for the improvement of business models. The methodology employed was the triangulation of research methods using qualitative and quantitative methods. This allowed for a multifaceted analysis of the research material and the implementation of inference and verification of the formulated research hypotheses.

The thesis consists of five chapters covering such issues as management systems and business models, technological determinants of business model transformation and sustainable business models. The empirical layer of the dissertation involves the assessment of available technologies in terms of improving business models of road transport companies and the synergistic effects of the use of technology.

The conducted research has shown that the applied technologies influence the change in the approach to management in road transport companies and foster the creation of sustainable business models, which is in line with the general trend to create “green” transport and logistics systems. The use of individual technologies and their combinations leads to synergy effects affecting the increase in the flexibility of transport and, in a broader sense, logistics processes in the area of supply chain management. Decisions of corporate management to initiate optimization activities are directly related to the opportunities offered by the technologies used, which in turn leads to changes in business models. It should be stressed that in-depth understanding of the assumed effects of selecting and using several technologies together is crucial in terms of eliminating sub-optimization.

The conclusions formulated based on expert interviews also prove that there is a link between the types and level of advancement of technology and the competences of managers. The conducted research enabled the author of the dissertation to outline the theoretical

framework of the extended version of the CANVAS business model taking into account technologies. Flexibility in the use of variable types of technologies has measurable benefits in relation to managerial decisions taken at all levels in the hierarchy of corporate management. However, research using expert knowledge has also revealed the existence of technology-related research areas that are in the initial “embryonic” phase of development, which is confirmed by the paucity of expert knowledge.

Research has shown that the introduction of telematics Solutions to the business model of transport companies increases the efficiency of decision-making processes and is reflected the increase of the analytical potential of transport processes. From the point of view of company managers, this enables both ongoing monitoring of the course of processes and immediate response to disruptions, as a result of which the processes are carried out in accordance with the assumptions agreed with the client. As a consequence of this approach, companies may benefit from measurable financial and non-financial benefits related to customer relationship management.