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Model for optimization and integration of the key factors influencing the effective planning of the production capacity of the industrial enterprise

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ABSTRACT

Many of the problems associated with production capacity decisions are due to the fact that the organization has to deal with the changing level of demand with the help of its relatively inflexible resources, determining its capacity. These complex solutions require prior forecasting demand and further development of plans to provide the necessary capacity. Production capacity is a key complex economic parameter of the enterprise and its effective planning and management is the basis of success and competitiveness of any production organization. The present study builds on an analysis from a previous study, examining the key factors in the process of planning and managing the capacity of the industrial enterprise, as well as the way they reflect and participate in the overall business strategy of organizations. This has helped to identify undiscovered opportunities for effective planning and management. Based on a literature review, interviews and research, 18 key factors were selected that influence the effective planning and capacity management of the production organization. Using the AHP (Analytical hierarchy process) method, the relationship between each of these factors and capacity management is examined, as well as the relationships between the key factors studied in the industrial enterprise. The interrelation and the conditionality between the various factors that contribute to the construction and functioning of the concept for maximum good planning and management of production facilities are examined.

Keywords: competitiveness, business strategy, AHP method, production organization, flexibility.