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**SYNTHESIS OF MODELS OF FACTORS PRIMARY IMPACT ON QUALITY OF SOFTWARE DESIGN PROCESS FOR MOBILE DEVICES**

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***Research methodology.*** *The paper presents the results of a systematic analysis of the factors influencing the quality of data security on mobile devices and the classification of these factors influence the object. Using semantic network theory makes it possible to determine the structure factors, using the language of predicate logic scheme presented formalized relationships between them. Application of hierarchy analysis system and method of ranking has secured the design of hierarchical models of factorspriority of the design process of the system software for mobile devices.*

***Results.*** *The design of models for solving the problem of ranking calculation of factors priority influence on the quality of the design process of system software for mobile devices has been done. The first model is based on using the analytic hierarchy using distance matrix to determine the levels of factorsinfluence. The second model uses the ranking method based on partial hierarchies design to calculate the weight values and the corresponding level of factorspriority. The multi-level model of factorspriority impact on the quality of the system software design has been synthesized.*

***Novelty.*** *The study has implemented an original approach for determining the quality of data protection on mobile devices with the use of structural modeling, theory of hierarchical multilevel systems. We have presented the following scheme: classification of factors as data protection on mobile devices; semantic network of factors of the system software design. We have built the following models: a graphical model of priority factors influence on the quality of the system software design for mobile devices built by analytic hierarchy; a graphical model of priority factors influence on the quality of the system software design for mobile devices built by ranking method.*

***The practical significance.*** *The design of data protection system is a multifactorial problem, which is determined by the quality processes of protection for individual components of the subsystem. Installation and analysis of all important factors that could affect these processes allows detecting violations of information security in time and adequately responding to them. The developed mechanism of the models synthesis can proactively and prognostically assess the quality of information security at all stages of its existence, it can be extended if necessary for any process of data protection. The suggested approach can be used to optimize the weight values of factors and corresponding models.*