

## Decision-Making in the Area of Efficiency of Housing Developing Based on Trend Analysis

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### Abstract

**Purpose of the article** This study, based on qualitative research, specifies factors, links between them and possible scenarios of development that affect the housing process. First of all, the study specifies the factors that are entering the process of building housing units. Study will then find out how these factors affect each other and based on the trend analysis, will be derive the possible scenarios that can occur during the process based on unpredicted changes. The solution of a trend model  $M(X)$  is a set  $S$  of scenarios where  $X$  is the set of  $n$  variables quantified by the trends. All possible transitions among the scenarios  $S$  are generated. An oriented transitional graph  $G$  has as nodes the set of scenarios  $S$  and as arcs the transitions  $T$ . An oriented  $G$  path describes any possible future and past time behaviour of the housing development system under study. The conclusion of this study will be the map of the whole process from which we can determine the state, depending on how the individual scenarios follow.

**Methodology/methods** A qualitative heuristic described by using just trends; qualitative values used to quantify variables and their derivatives: plus/increasing; zero/constant; negative/decreasing.

**Scientific aim** The model should serve to expedite the decision-making process of management in the developing of housing units and to react more quickly to the realities that may arise during construction

**Findings** Finding an efficient path for a development company with observation on influences from major variables in process of housing development.

**Conclusions** Identification and determination of vague determinants of housing developing affected by macroeconomics aspects to goal of increasing efficiency in developing.

**Keywords:** Forecast, Housing development, Real estate, Trend, Qualitative, Transition,

**JEL Classification:** R1, E3, E6, J1

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