

## Online markets as a Tool for Rug Design Future Trend Forecasting Using Linear Regression

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### Abstract

The world in the last decade seems to be a changeable world, due to many factors, especially the digital shift. Purchasing behaviors generally become more complex over time. Changes in the business environment require decisions about the product line to be made continuously. These can include adjustments to product specifications, the introduction of new product variations, the selection of the product platform and making use of new technologies and markets by means of completely new product lines. These decisions affect a large group of different players at different levels of product design and corporate management. Decisions must be based on information from market surveys, technical research and development work. In decisions related to product's lines, products and their subsystems, the information about markets and new technology - even if it is accurate and credible, which is not always the case - cannot be easily exploited. It deals with premises, while the decisions concern designs and concrete actions. The ability to predict upcoming trends plays a very important role in designing carpets and textiles. Trend forecasting can be used to anticipate trends for the next season or year. Many carpet companies can use this valuable trend forecasting information to create their own products. The classical way for fashion brands, and agencies to forecast trends is by analyzing runway shows, trade shows, newspapers & magazines' information, and market research . The Internet, and consequently, social media, has accelerated the life cycle of trends and birthed phenomena like fast fashion and global supply chains. Trend directions, time-to-market speed, and consumer behavior has shifted in the last decade as a result of the digital age. There are now fashion forecasting services using new technologies and mostly AI, to predict what's coming next. The aim of this research is to use online stores as a tool to predict future trends in goods design (carpet designs as a model). Where some distinctive electronic markets will be elected, in some geographical areas, which will represent the area of the study (preference is determined according to many factors like: the ability to know the experiences and evaluation of previous customers, covering the largest amount of the products in the study and the degree of prevalence among customers).

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### Keywords

Forecasting- Online markets -Trend- Linear Regression

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