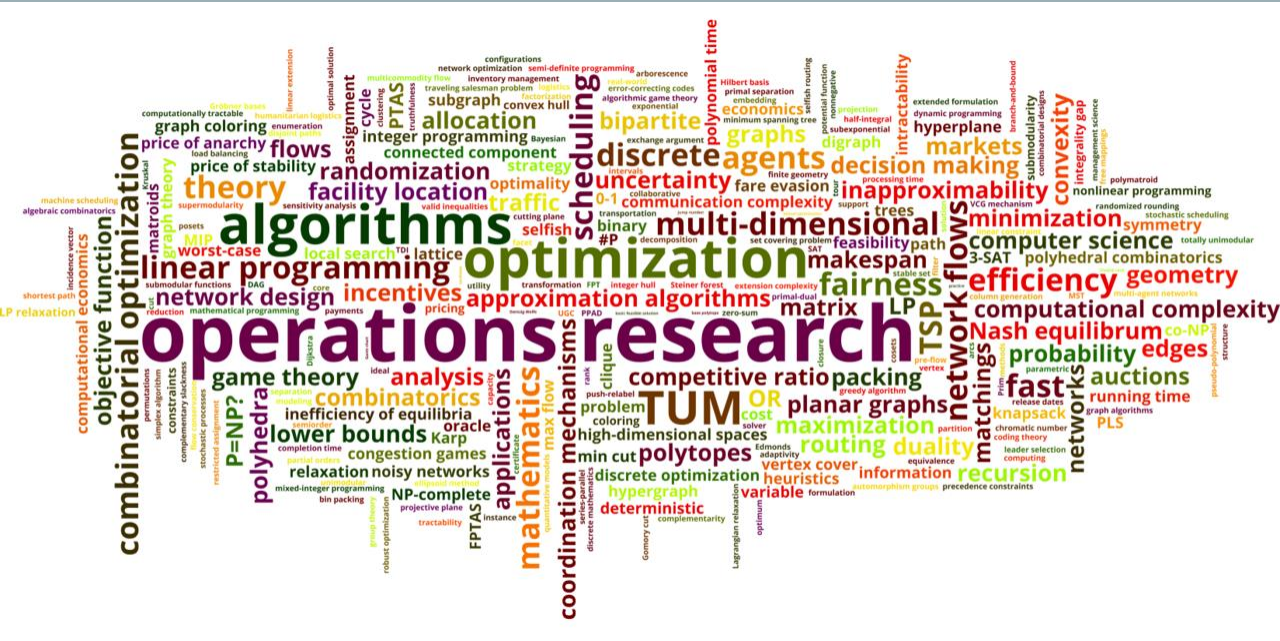


# ADVANTAGES AND LIMITATIONS OF OPERATIONS RESEARCH



Name: Emir

Surname: Oguz

Student Number: 230ADB011

# WHAT IS OPERATIONS RESEARCH?

- Operations research is an interdisciplinary science that uses scientific methods such as mathematical modeling, statistics, and algorithms to generate ideas for real complex problems of the world related to the coordination and execution of operations within an organization.



- Operations research aims to achieve the best possible performance under the current conditions. If a company uses scarce resources, it should allocate them as effectively as possible; operations research helps in this process.
- Operations research has many advantages and plays a significant role in many organizations. However, there are also disadvantages. Before using operations research in a business decision, managers and entrepreneurs should be familiar with many aspects of this field.



# ADVANTAGES OF OPERATIONS RESEARCH

## ➤ Better Systems

Operations Research helps create a better system within the organization by ensuring that many operations are carried out cost-effectively. It also provides that the people involved in the organization carry out the process systematically.

## ➤ Enhanced Productivity

Operations Research helps to increase the production of an organization. Operations Controls enable managers to learn essential information before making a critical choice. It helps a business make small decisions first and then big ones.



# ADVANTAGES OF OPERATIONS RESEARCH

(Continued)

## ➤ Better Decision-Making Process

Operations Research models help improve decision-making and lower the possibility of making bad decisions. Operations Research Approach gives the executives an improved insight into how they will make decisions.

## ➤ Better Control

The management of large organizations recognizes that it is a complicated and costly affair to provide continuous executive supervision to every routine work. An Operations Research Approach may provide the executive with an analytical and quantitative basis to identify the problem area.



# ADVANTAGES OF OPERATIONS RESEARCH

(Continued)

## ➤ Improved Coordination

Operations Research improves cooperation across several departments and workers since it concentrates on the entire organization rather than just one department.



# LIMITATIONS OF OPERATIONS RESEARCH

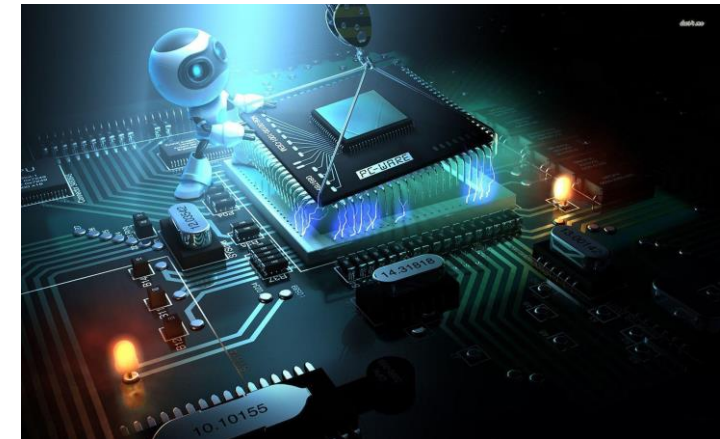
## ➤ Money and Time Costs

The main drawback of Operations Research is its high price. Operations Research uses mathematical equations that are created using pricey technologies.



## ➤ Dependence on an Electronic Computer

Operations Research methods look for the best solution while considering all the variables. Due to the size of these components in contemporary society, describing them quantitatively and developing links between them calls for extensive computations that computers can only perform.

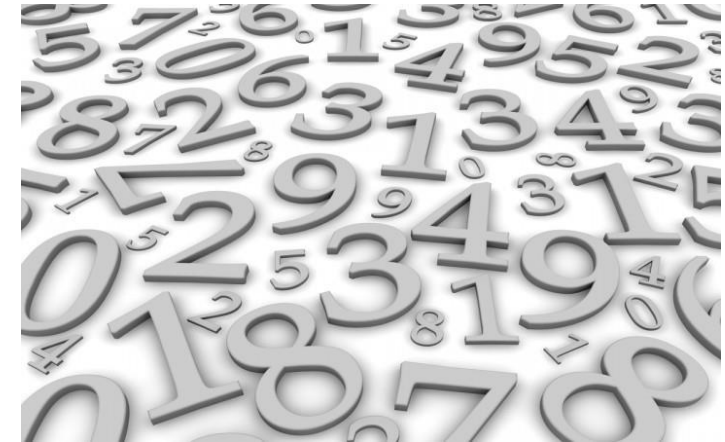


# LIMITATIONS OF OPERATIONS RESEARCH

(Continued)

## ➤ Non-Quantifiable Factors

Operations Research techniques only offer a solution when every aspect of an issue can be measured. Only some relevant variables are appropriate for quantification. Models for Operations Research do not include variables that cannot be calculated.





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