

## MULTI CHAIN DECISION MAKING PROCESS AND ITS IMPACT ON THE EMPLOYEE.

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### **Abstract:**

The current study focuses on the multi-chain decision-making process to identify. In the present study, we have gone through the different levels of multi-chain decision-making process and its related research papers online, related reference books and material from various sources mentioned. From the review of all these, I can conclude my study as follows:

A multi-chain decision-making process is one in which multiple parties, often from different departments or teams, collaborate and contribute to the decision-making process. This method acknowledges that different points of view and expertise can lead to better decisions and outcomes. Multi-chain decision-making has the potential to increase employee engagement, buy-in, and ownership of decisions. Employees are more likely to feel valued and heard when their suggestions are considered, which can lead to increased job satisfaction and motivation. Additionally, multi-chain decision-making can improve communication and collaboration between teams, leading to more efficient and effective decision-making overall.

**Key words:** multi-chain decision, multi-chain process, method, impact, employees' decision-making, perspective, applicability.

### **Introduction:**

A choice is made through a number of interrelated chains of events or acts, which is referred to as a multi-chain decision-making process. In this paradigm, each chain stands for a different choice or option, and the result of one chain has an impact on the result of the following chain.

It's a very complex process which needs a detailed planning, review, and analysis. The alternative which is to be selected should be based upon the criteria and which can be an effective way to make decisions accordingly.

Multi-chain decision-making process is a

collaborative approach to decision making that incorporates personnel from multiple levels and departments of a business. This strategy may impact employees in a number of ways, However, there can also be potential negative effects of multichain decision making process on employees When effectively implemented, the multichain decision making process can have a beneficial overall impact on employees by fostering better internal engagement, communication, and collaboration. Nonetheless, to achieve a good decision-making process, it is crucial to mitigate potential negative repercussions.

#### **What is multi-chain decision making?**

A multi-chain decision-making method is a strategy to making decisions that entails dissecting a difficult choice into a number of linked chains of circumstances or acts. The results of one chain have an impact on the results of the next chains, and each chain represents a different alternative or decision path.

The decision maker initially recognises the issue or the choice that has to be taken in a multi-chain decision-making process. Then they come up with a list of prospective possibilities or alternatives and assess each one according to specified standards like risk, cost, impact, and impact.

Following completion of the evaluation, the decision-maker constructs a number of chains of events or deeds to symbolise

each possibility. These chains have a distinct beginning and finish, and each chain's result is predictable.

The decision maker constructs the chains and then evaluates each chain, identifying its advantages, disadvantages, opportunities, and dangers. Ultimately, they decide on the most likely course of action based on the analysis done in the earlier steps.

Ultimately, the multi-chain decision-making process is an intricate and methodical way to make judgements that takes into account all possible outcomes and can be useful for making difficult ones.

#### **Literature review:**

##### **GK Atia et al., 2020**

For determining policies that adhere to restrictions on the agent's steady-state behaviour, the multichain SSPS problem was established. For the class of edge-preserving policies, a linear programming solution was put out, and its validity was demonstrated. Simulations of the resulting policies show that our approach gets beyond the literature's limitations.

##### **N Tapus, et al., 2019**

The integrated decision-making environment described in this article is based on the human anatomy as well as a number of naturally occurring phenomena and processes, such as swarming and the neurological decision-making process of humans. We aim to define a cogent

organic Decision Making Environment tailored for human society by nature itself by observing the natural fractals related to decision making, which can be clearly seen in bee swarms, ant colonies, and human neurons, along with the organic capabilities of storing and distributing information using the DNA and the overall anatomy of the human body. We must first start looking at how information is transported between cells and stored inside the DNA if we are to accurately reproduce the biological operating system that the human body uses to regulate itself. in chronological order

#### **W Yang et al.,2021**

Conversational systems typically struggle with the problem of managing knowledge from numerous human specialists. The current knowledge-based chat system mechanism is always relied on centralised servers, which may provide issues for security and transparency. The security and effectiveness of various sectors are improved by the blockchain solutions now being presented. There are numerous blockchain systems, each with unique features, yet there is currently no chat system in place that uses a blockchain platform. In this study, we analysed the knowledge-based conversation system's requirements in detail and presented a decision model for choosing the most appropriate blockchain platform. Many measurements, such as the Fuzzy Method for Order Preference by Analytical Hierarchy Process (FAHP), Analytical Hierarchy Process (AHP).

#### **N TAPUS, et al.,**

By using a system of decision-making that was created for us by nature and applying it to areas like social governance, we remove the burden of decision-making from any tiny governing body and disperse it to everyone. according to our unique capacities and dispositions, each and every one of us. Our integrated decision-making platform should enable all the participants to negotiate in synchrony, adopting decisions that are forming in front of them in real-time, as we observed in all natural systems that entail decision-making. Choosing agents don't hold fixed opinions; instead, they constantly evaluate and reevaluate their own distinctive convictions in relation to each of the potential outcomes, taking into account their own preferences and levels of confidence. If everyone does this simultaneously, the body of governance can quickly come to an agreement on

#### **LCM Kallenberg - Operations Research Proceedings 1991:**

For specific pairs of states and actions, separable Markovian decision problems have the property that: (i) the immediate reward is the sum of terms due to the current state and action; and (ii) the probability of a transition occurring depends only on the action and not on the state from which it occurs. An LP formulation that uses a lot fewer variables than the LP formulation of a general Markov decision problem is known for the discounted case and the unichain undiscounted case.

**It can be divided into various parts as: It can be divided into various parts as:**



**Importance of multichain decision making:**

Multichain decision making is crucial because it enables decision makers to weigh a variety of options and possible outcomes before deciding. This strategy can help to raise the possibility of attaining desired results, raise the quality of decision-making, and lower the risks involved with making a single decision based on scant information.

Here are some specific reasons why multichain decision making is important:

- 1) allows for a thorough study Multichain decision-making includes dissecting large decisions into more manageable, related chains of actions or events. This strategy enables decision-makers to thoroughly evaluate each possibility and take into account all feasible outcomes prior to making a final choice. Decision-makers can discover the benefits, drawbacks, opportunities, and threats of each alternative by studying each chain, and then base their choice on the information at hand.
- 2) reduces risk: In complex or high-stakes situations, making a single decision based on few knowledge can be perilous. Multichain decision making lowers the risks involved with making a single decision by taking into account a variety of alternatives and possible consequences. Decision-makers can switch to a different alternative if the first one does not turn out as planned without having to start over.
- 3) Enhances choice quality: Since multichain decision making enables decision makers to examine the advantages and disadvantages of all potential outcomes, it can result in decisions of greater quality. This strategy can aid in the early detection of potential problems and difficulties as well as the creation of remedies to lessen the risks involved.
- 4) Enhances creativity and innovation: Since multichain decision making enables decision makers to consider a wide range of options and outcomes, it promotes

innovative thinking and creative thinking. Decision-makers can create original, creative answers to challenging issues by weighing a variety of possibilities.

**Pros and cons of multi-chain decision making process:**

Multichain decision making is critical because it allows decision makers to consider multiple alternatives and potential outcomes before making a final decision. This strategy can help to improve decision-making quality, increase the likelihood of achieving desired outcomes, and reduce the risks associated with making a single decision based on limited information.

**pros and cons of multidecision making process on employees:**

Depending on the situation and how the process is implemented, multichain decision making can have both positive and negative effects on employees. Here are some of the potential benefits and drawbacks of multichain decision making on employees:

**Pros:**

**Involvement and engagement:** Gathering input from multiple stakeholders, including employees, is required for multichain decision making. This can help to increase employee engagement and participation in decision making, as well as greater buy-in and commitment to the final decision.

**Creativity and innovation:** Multichain decision making fosters creative thinking and innovation, which can result in novel ideas and approaches. Employees who are given the opportunity to contribute their ideas and expertise to the decision-making process may find this empowering.

**Improved communication:** Making multichain decisions necessitates clear communication and collaboration among team members. This can aid in the improvement of communication skills and the creation of a more collaborative work environment.

**Shared responsibility:** Multichain decision making entails shared responsibility for the final decision, which can help employees build trust and improve teamwork.

**Cons:**

**Time-consuming:** Making multichain decisions can be time consuming, especially if there are multiple chains or options to consider. Employees who

believe the process is taking too long may become frustrated and impatient.

**Conflicting opinions:** Gathering input from multiple stakeholders for multichain decision making can result in conflicting opinions and viewpoints. This can lead to employee tension and disagreement, which can be difficult to resolve.

**Lack of control:** Employees who prefer to have control over the decision-making process may find multichain decision making difficult. This can result in feelings of powerlessness and frustration.

**Limited resources:** Making multichain decisions may necessitate the use of additional resources such as time, money, or expertise. This can be difficult for organisations with limited resources or budgets.

Overall, multichain decision making can have an impact on employees in both positive and negative ways. To reduce the negative consequences, it is critical to involve employees early in decision-making, to provide clear communication and guidance, and to address any conflicts or concerns that arise.

#### **Types of multi-chain decision making process:**

There are various types of multichain decision making processes, each with its own set of advantages and disadvantages. The following are some examples of multichain decision making:

**Decision trees:** Decision trees are a graphical representation of the decision-making process that map out each alternative and potential outcome in a branching structure. This method is useful for visualising complex decisions and considering all possible outcomes.

**Scenario analysis:** Scenario analysis entails developing a number of scenarios or possible futures, each with their own set of assumptions and outcomes. This approach can assist decision makers in identifying the most likely outcomes and developing risk mitigation strategies.

**Cost-benefit analysis:** The process of weighing the costs and benefits of each alternative and comparing them to determine the most advantageous option is known as cost-benefit analysis. This method can be useful when making decisions that involve financial considerations..

**Multi-criteria decision analysis:** The process of weighing multiple criteria or factors

that are important to the decision-making process, such as cost, time, and environmental impact, is known as multi-criteria decision analysis. This method can be useful in decisions involving multiple stakeholders and competing priorities.

**Group decision making:** To reach a consensus decision, group decision making requires gathering input from multiple stakeholders, such as employees or subject matter experts. This approach can be useful for decisions that necessitate a range of perspectives and expertise.

**Game theory:** The decision-making process is modelled as a game, with each stakeholder having their own set of objectives and strategies. This method can be useful in decisions involving strategic planning and competitive environments.

**Limitations:**

Limitations in multichain decision making can have an impact on the employees involved in the decision-making process. Here are some of the most common limitations, as well as their potential consequences.

**Complexity:** Making multichain decisions can be difficult and time-consuming, especially when there are numerous options or chains to consider. This can cause employee frustration and stress, as they may feel overwhelmed by the decision-making process.

**Limited participation:** Despite efforts to include multiple stakeholders, some employees may feel excluded from decision-making. This can result in feelings of powerlessness and disengagement from the organisation.

**Conflicting opinions:** Gathering input from multiple stakeholders for multichain decision making can result in conflicting opinions and viewpoints. This can lead to employee tension and disagreement, which can be difficult to resolve.

**Bias:** Biases such as confirmation bias and groupthink can influence multichain decision making, resulting in poor decision making. This can have an impact on employees who may be negatively impacted by the decision.

**Limited resources:** Making multichain decisions may necessitate the use of additional resources such as time, money, or expertise. This can be difficult for organisations with limited resources or tight budgets, which can have an impact on decision-making quality.

**Result :**

The scope of multichain decision making process is broad and can be applied to various

aspects of an organization's operations. It can be used in both strategic and tactical decision making, such as developing long-term plans or establishing organisational goals.

Multichain decision making can also be used in cross-functional teams or inter-departmental projects to ensure that different points of view and expertise are considered when making decisions. It can also be used to involve external stakeholders, such as customers or suppliers, in the decision-making process.

Additionally, the scope of multichain decision making can extend beyond organisational boundaries to include partners and collaborators in decision-making processes, such as joint ventures or alliances.

So, the scope of multichain decision making is broad and can be applied in a variety of settings and contexts to improve decision-making outcomes and promote collaboration and communication. But, clear guidelines and processes must be established to ensure that the decision-making process remains efficient and effective. However, Implementing a multichain decision-making process can result in a more engaged and satisfied workforce as well as improved organisational performance.

#### **Discussion:**

Finally, multichain decision making can benefit employees by encouraging collaboration, engagement, and ownership in the decision-making process. Multichain decision making can result in better outcomes and improved communication between teams by incorporating different perspectives and expertise. However, clear guidelines and processes must be established to ensure that the decision-making process remains efficient and effective. Implementing a multichain decision-making process can result in a more engaged and satisfied workforce as well as improved organisational performance.

Multichain decision making can also improve departmental and team communication and collaboration. By bringing together employees from different parts of the organisation, it can break down silos and improve the sharing of information and ideas.

However, the effect of multichain decision making can depend on the specific processes and guidelines used. If the process is not well-structured or if certain stakeholders are excluded, it can lead to confusion, conflict, and a lack of engagement among employees. When properly implemented, multichain decision making can have a positive overall impact on staff members, improving collaboration, communication, and employee engagement. Implementing a multichain decision-making process, on the other hand, can present difficulties, such as navigating different perspectives and priorities and ensuring

that everyone's input is heard and considered. To ensure that the decision-making process remains efficient and effective, clear guidelines and processes must be established.

So as per my view: if the multichain decision making process is used according the company policy and its type with reference to its management and effectiveness of its decision making power, it can show positive results upto an extent with certain limitations.

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