Decision-Making

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ABSTRACT: *Administrative behaviour does comprise the basic popular element of decision-making. Many academics and social scientists, in particular public administration scientists, will be aware that **Herbert A. Simon**, the foremost decision theorist, defines **decision-making** as the optimum rational choice between alternative courses of action. According to him, decision making pervades the entire organisation, that is, decisions are made at all level of organisation. Hence he perceives an organisation as a structure of decision makers. He equates **administration** with decision making as every aspect of administration resolves around decision-making. Further **Simon** argues that before one can establish any immutable principles of administration one must be able to describe, exactly how an administration organisation looks and exactly how it works. He observes that before a science can develop principles, it must possess concepts. Decision-making is the most important activity of administration…. An administrative science, like science, is concerned purely with factual statements, and there is no place for ethical statements in the study of science. To sum up the study, **H.A. Simon's** concept of administration comprises **two basic** elements; namely,*

(a) The emphasis upon decision-making approach as the alternative to the classical thinkers' principles approach, that is, structural approach; and

*(b) The advocacy of **empirical approach**, value-free approach, as against the normative approach to the study of administration.*

Keywords: *decision-making, alternative course of action, structural-approach, empirical approach, normative approach, science and administration.*

I.   INTRODUCTION

In order to understand **administrative behaviour**, it is important to examine **one of its basic elements**; namely, **the concept of decision-making with particular reference to Herbert A. Simon**.

II.   THE PURPOSE OF THE ARTICLE

Through **qualitative research** which draws data from a variety of sources, including **people; organisations** or **institutions; texts; settings** and **environment; events** and **happenings**; and which also includes an array of interpretive technique that seek to describe, decode, translate, and otherwise come to terms with the **meanings**, not the frequency, of certain more of less naturally occurring phenomena in the social world (S. B. M Marume 1986 and 1988), it is aimed in this article to achieve a systematic and scientific in depth understanding of the commonly used but yet the most complex and elusive concept of decision-making in political science and pubic administration with reference to **Herbert A. Simon**, the foremost decision theorist. Thus, this article **focuses** on decision-making as one of administrative behaviour's **basic elements**. Its specific objectives which provide also a reasonable framework of the discussion are to:

a)   **define** decision making;
b)   **examine, explain** and **evaluate H.A. Simon's** concept of decision-making;
c)   **discuss** the **bases** of decision-making;
d)   **illustrate** the process or stages in decision-making;
e)   **classify** various types of decision making by various thinkers;
f)   **elucidate four models of decision-making** in public administration.

III.   DECISION MAKING WITH REFERENCE TO H.A. SIMON

To deal with this topic adequately and clearly, recourse needs to be made to the role and scope of related literature review in any study.

* Firstly, the major purpose of reviewing the literature is to determine what has already been done that relates to one's own topic of study. This knowledge not only prevents one from unintentionally duplicating research that has already been conducted, but it also affords one the understanding and insight critically

needed to situate one's topic of study within an existing framework. In this connection D. N. Boore and P. Beile (2005:3) explain,

- A substantive, thorough, sophisticated literature review is a precondition for doing substantive, thorough, sophisticated research. Good research is good it advances our collective understanding. To advance our collective understanding, a researcher, or scholar or scientist need to understand what has been done before, the strengths and weaknesses of existing studies, and what they might mean.

- A review of literature enables, therefore one to acquire a full understanding of one's topic of study; what has been already said about it; how ideas related to one's topic have been researched, applied, and developed; the key issues surrounding one's topic; and the main criticisms that have been made regarding work on one's topic. All this assists us to become experts on our chosen area of inquiry as follows:

1.1. Meanings

The first question that comes to mind is: What is decision making? First and foremost decision making is viewed by various leading scientist and writers as follows:

- **Webster's Dictionary**: the act of determining in one's own mind upon an   opinion or course of action.
- **Robert Tannebaum**: involves a conscious choice of selection of one's behaviour alternative from among a group of two or more behaviour alternatives.
- **G. R. Terry**: the selection of one behaviour alternative from two   or more possible alternatives.
- **Seckler-Hudson**: decision making in the government is a plural   activity. One individual may pronounce the decision, but many contribute to the process of reaching the decision. It is a   part of the political system.
- **W. F. and Ivan H. Meyer**: a management technique used to reach decision by analyzing information, evaluating alternatives and, in each case, choosing the best policy or line of action.

(a) identifying the problem;
(b) analyzing the problem;
(c) collecting data;
(d) classifying and analyzing data;
(e) preparing data;
(f) cataloguing alternative solutions;
(g) evaluating the alternatives;
(h) taking the decision;
(i) implementing the decision; and obtaining feedback on the effects of the decision.

3.1.1   Relevant prominent scientist and writers

Relevant prominent scientist and writers to decision making include:

• Fred Luthans	• R. Tannebaum	• G. R. Terry
• Seckler- Hudson	• W. Fox	• Ivan H. Meyer
• J. D. Millett	• Felix Nigro	• C. I. Beranrd
• H. A. Simon	• D. W. Smithburg	• V. A. Thompson
• Charles E. Lindblom	• Amitai Etzioni	• Yehezkel Dror

3.1.2   Relevant scientists. Scholars and writes and their contributions:

A systematic related literature review of decision making as one of the basic elements of administrative behaviour gives the following eminent scholastic contributions:

3.1.3   Discussion and analysis of the meanings

A careful review of the contributions by the various behaviour, scholars and writers reveals that as one of the basic elements of administrative behaviour, **decision-making** means choosing one alternative from various alternatives and that it is essentially problem solving in nature.

- Decision making is closely related to policy-making, but they are not the same. **G. R. Terry** clarifies the difference between **decision** and **policy** as follows:
  'a decision is usually made within the guidelines established by policy. A policy is relatively extensive, affects many problems, and is used again and again. In contrast, a decision applies to a particular problem and has a non-continuous type of usage'

- **Classical thinkers**, however, did not attach much importance to decision making as an all pervasive activity related to all management functions like **planning, organising, coordinating, controlling**, and so on.
- In the words of **Fred Luthans,** classical thinkers such as **Henri Fayol** and **Lyndale Urwick** were concerned with decision-making process only to the extent that it affects delegation and authority, while **Frederick W. Taylor** alluded to the scientific method only as an ideal approach to making decisions.
- The **first comprehensive analysis of decision making** process was given by **Chester I. Barnard** (1886 - 1961) who observed that the processes of decision making are largely techniques for narrowing choice.
- **J. D. Millett** mentions **three factors** which should be examined in order to understand the decision making process:

(a) Personal differences among the individuals that make some decisive and others indecisive.
(b) Role played by knowledge in decision-making
(c) Institutional and personal limitations which circumscribe decision-making.

- But **W. Fox and Ivan H. Meyer**: argue that in practical real life situations decision are more often made on reflex, without mush conscious thought, or they are made without systematically and exhaustively collecting all possible alternatives but deciding on an alternative that satisfies (1955:33).

1.2. H. A. Simon's Concept of decision making
A closer look at Simon's concept of decision-making indicates the following:

3.2.1 Meaning of decision making
Herbert A. Simon, a leading America public administration scientist as the foremost decision theorist looks at decision-making as the optimum rational choice between alternative courses of action. According to **Simon**, decision-making pervades the entire organization, that is, decisions are made at all levels of the organization. Hence, he views an organisation as a structure of decision makers. Simon equates administration with decision-making as every aspect of administration revolves around decision-making. He observes that decision-making is an all embracing activity subsuming all the administrative functions described as '**POCCC** by **Henri Fayol** and **POSDCORD** by **Luther Gulick**'.
 H. A. Simon is very critical of the **classical approach** and its advocacy of principles of administration having universal application. He challenges their universal validity and describes them as **proverbs** occurring in mutually contradictory pairs.   He argues that before one can establish any immutable principles of administration, one must be able to describe, exactly how an administrative institution (organisation) looks and exactly how it works.
H. A. Simon observes that before a science can develop principles, it must possess **concepts**. Decision-making is the most important activity of administration …… An administrative science like any science is concerned purely with **factual statements**. There is no place for **ethical statements** in the study of science.

3.2.2 Summary of Simon's concept of administration
To sum up, **H. A. Simon** concept of administration has **two basic elements**; namely,
(a) The emphasis upon **decision-making approach** as the **alternative** to **the classical thinkers principles approach**, that is, structural approach and
(b) The advocacy of **empirical approach** that is, **value-free approach**, as against the normative approach to the study of administration.

As rightly observed by N. Umapathy, **H. A. Simon's** proposes **a new concept of administration** that is **based upon theories** and **methodology of logical positivism** with the **focus on decision making**.

1.3. Bases of factors of decision making
- What then are the bases of decision-making in any situation?
To answer this, contribution by **Seckler-Hudson** and **H. A. Simon**, as leading scholars in this area, are considered.
- **Seckler-Hudson**: gives a famous list of twelve (12) factors which are **considered** in **decision-making**. These are enumerated as:
(1) Legal limitations;
(2) Budget;
(3) Mores;
(4) Facts;

(5) History;
(6) Internal morale;
(7) Future as anticipated;
(8) Superiors;
(9) Pressure groups
(10) Staff
(11) Nature of programme; and
(12) Subordinates

- **According to Herbert A. Simon**, **every decision** is **based upon two premises**; namely
(a) The **factual premises** and
(b) The **value premises**.

Explanations:
(a) **A fact** is a statement of **reality**. **A factual premise** can be **proved** by **observable** and measurable means, that is, it can be **tested empirically to find out its validity**.
(b) **A value is an expression** of **preference.** A value premise **cannot** be tested empirically, that is, it can only be subjectively asserted as valid.

Interpretations:
According to H. A. Simon, the **value premises** are concerned with the choice of ends of action, which the factual premises are concerned with the choice of means of action. He maintains that, in so far as **decisions** lead to the selection of final goals, they can be called as **value judgments**, that is, the value component predominates, and in so far as they (decisions) involve the implementation of such goals, they can be called as **factual judgments** that are **the factual component predominates**.

1.4. Process or stages in decision making
To treat this aspect adequately, we will try to answer the two following questions:
- What is the reasonable sequence of steps in decision-making?
- What does **H. A. Simon** consider to be stages of decision-making?

Contributions as possible answers:
According to Fox and Ivan Meyer(1995:33), **steps** in the **comprehensive rational decision-making process** include:
- **G. R. Terry,** a prominent scholar on the subject, lays down the following sequence of steps in decision making:
(a) Determine the problem.
(b) Acquire general background information and different viewpoints about the problem.
(c) State what appears to be the best course of action.
(d) Investigate the proposition(s) and tentative decisions.
(e) Evaluate tentative decisions
(f) Make the decision and put is to effect.
(g) Institute follow up and if necessary modify decision in the light of result obtained.
- **According to H. A. Simon's stages of decision-making,** decision making comprises **three principal stages/phases/processes.** These are: intelligence activity, design activities and choice activity. They are explained separately as follows:

(a) Intelligence activity
Herbert A. Simon calls the **first phase** of decision-making process as an intelligence activity which involves finding occasions for making a decision. According to him, the executives spend a large fraction of their time surveying the economic, technical, political and social environment to identify new conditions that call for new action.

(b) Design activity:
The **second phase,** also called the **design activity**, consists of **inventing developing** and **analyzing** possible courses of action that is, finding alternative courses of action. Simon believe that the executive spend an even larger fraction of their time, individually or with their associates, seeking to **invent, design** and **develop** possible courses of action for handling situation where a decision is needed.

(c) Choice activity:
Simon calls the last phase in decision making as the **choice activity**, which involves selecting a particular course of action from the given alternatives. He opines (thinks, believes) that the executives spend a small fraction of their time in choosing among alternative actions already developed and analyzed for their consequences to meet an identified problem.

IV.   DISCUSSION AND CONCLUSIONS

According to Herbert A. Simon, these three phases in decision making are closely related to the stages in problem-solving first described by John Dewey (1910). They are:
(a) What is the problem?
(b) What are the alternatives?
(c) What alternative is best?

V.   CONCLUSION

Herbert A. Simon: concludes that, in general, **intelligence activity precedes design** and **design activity precedes choice.** The cycle of phases is, however, far more complex than this sequence suggests. Each phase in making a particular decision is in itself a complex decision making process. For example, the **design phase** may call for new intelligence activities; problem at any given level generate sub-problems that, in turn, have their intelligence, design, and choice phases, and so on. There are, therefore, wheels within wheels. Nevertheless, the **three large phases** are often clearly discernible as the organisational decision process unfolds.

3.5 Classifications of decisions

- To clearly appreciate this sub-aspect of the research paper it is important to deeply consider the following research contribution:
- Greater confidence in the social research is warranted if the research scientist is experienced, has a good reputation in research, and is a person of integrity. Were it possible for the readers of a research report/study, to obtain sufficient information about the research scientist, this criterion perhaps would be one of the best bases for judging the degree of confidence a piece of research warrants and the value of an decision based upon it. For this reason the research report should contain information about the qualifications of the research (S.B.M. 1982, 1986, and 1988).
- To assist political office bearer executives, public administrators, educational and academic thinkers, and researchers, decisions may be classified into various typologies by various thinkers and researchers. According to a critical review of related literature by some of the eminent public administration scientists, a few classifications are listed below.

3.5.1   Programmed and non programmed decisions

H. A. Simon classifies decisions into **programmed** and **non-programmed**.
(a) **Decision**s are **programmed** to the extent that they are **repetitive** and **routine** so that a definite procedure has been worked for handling them and they do not have to be treated de novo each time they occur. It is decision making by precedent.
(b) **Decisions** are **non-programmed** to the extent that they are **novel, unstructured**, and **consequential.** There is no cut and dried method for handling the problem because it has not arisen before, or because its precise nature and structure are elusive or complex or because it is so important that it deserves a custom – tailored treatment.

H. A. Simon has identified the traditional as well as the modern techniques of programmed and non programmed decision. These are illustrated below in Table 1.1

Table 1.1 Techniques of programmed and non-programmed decision:

Types of decision	Traditional techniques	Modern techniques
Programmed: • Routine, repetitive decision • Organisation develops specific processes for handling them	1. Habit 2. Clerical routine 3. Organization structure: • Common expectations • A system of sub-goals well defined information channels	1. Operations research • Mathematical analysis models • Computer simulation 2. Electronic data processing
Non programmed: • One-shot, ill-	1. Judgement intuition	Heuristic problem solving techniques applied to:

structured, novel, policy decisions	and creativity	(a) Training human decision makers
• Handed by general problem-solving processes	2. Rules of thumb 3. Selection and training of executives	(b) Constructing heuristic computer programmes.

Simon and March have stated that the administrator who is responsible for both routine activities and long term planning devotes greater share of his time on routine activities. This results in either postponement or avoidance of long term decisions. This phenomenon is called by them as **Gresham's Law of Planning**. It implies that routine drives out non-programmed activity.

3.5.2   Generic and unique decisions
Peter Drucker in his popular book. The Practice of Management classifies decisions into **generic and unique decision**. In some way, these resemble **programmed** and **non programmed decision**s respectively.

3.5.3   Organisational and personal decisions
Chester 1. Barnard: classifies decision into **organisational** and **personal decisions**. The former (organisational) are taken by an executive in his individual capacity that is, not as a member of his organisation.

3.5.4   Policy and operating decisions
Decisions are further classified into **policy decisions** and **operating decisions**
(a) **The policy decisions are also known as strategic decision**s. These decisions are of fundamental character affecting the entire organisation. Obviously, they are taken by the top management.
(b) By contrast, the **operating decisions** are meant for **executing** the **policy decisions**. Hence, **they are taken by the lower management cadres**. **These are also known as tactical decisions.**

3.5.5   Individual and group decision
Decisions are also classified into **individual** and **group decisions** on the basis of the number of persons involved in the decision making process.
(a) **Individual decisions**: are those decisions which are made by individual public administrators or managers in the organisations. They assume complete responsibility for the consequences of their decisions.
(b) **Group decision**s: on the other hand, are those decisions which are made by a group of administrators or mangers in an organisation.

They assume collective responsibilities for the consequences. **Cabinet policy decisions** are an example of decisions assuming collective responsibility.

3.6 Models of decision-making
• To understand **Simon's** concept of decision making more comprehensibly let us examine **another relevant aspect;** namely, **models of decision-making.**
• There are four models of decision making namely:

(a) **H. A. Simon's bounded rationally model**;
(b) **Charles E. Lindblom's incremental model**
(c) **Amitai Etzioni's mixed scanning model** and
(d) **Yehezkel Dror's optimal model**

We analytically examine each model separately as follows:

3.6.1   Simon's bounded rationality model of decision making
Herbert A. Simon deals comprehensively with the rationality aspect of decision making process. His model of rational decision making is also known as behaviour alternative model because he proposes an alternative model as a more realistic alternative to the classical economic rationality model.
Simon views **rationality** as the selection of preferred behaviour alternatives in terms of values whereby the consequences of behaviour can be evaluated. He also distinguishes **various types of rationality**. According to him, six specific elements must be analytically understood in that a decision is:
(a) Objectively rational if in fact is the correct behaviour for **maximizing** given values in a given situation.
(b) Subjectively rational; if it **maximizes** attainment relative to the actual knowledge of the subject.
(c) Consciously rational to the degree that the **adjustment of means to ends** is a conscious process.

(d) Deliberately rational to the degree that **adjustment of means to ends** has been deliberately brought about by the individual of by the organisation.

(e) Organizationally rational if **it is oriented** to the organization's goals.

(f) Personally rational if **it is oriented** to the individual's goals.

The concepts satisfaction and **sufficing** and **bounded rationality Herbert A. Simon**: believes that **total rationality** is impossible in administrative behaviour. Hence, **maximizing decisions** is also not possible. As a result:

• Simon observes that human behaviour in an organisational setting is characterized by **bounded rationality (Limited rationality)** leading to **satisficing decisions** as against **maximizing decisions (optimizing decisions)**.

• **Satisficing** (a term derived from the combination of terms, **satisfaction** and **sufficing)** decisions implies that a decision maker chooses an alternative which is **satisfactory or good enough**.

• Regarding the term bounded rationality, a number of factors are **responsible for bounded rationality** leading to **satisficing decisions**

(i) **Dynamic** (rather than static) nature of organisational objectives.

(ii) **Imperfect** (inadequate) information as well as limited capacity to process (analyse) the available information.

(iii) Time and cost constraints

(iv) Environmental forces or external factors.

(v) Alternatives cannot be always quantified in an ordered preference.

(vi) Decision- maker may not be aware of all the possible alternatives available and their consequences.

(vii) Personal factors of the decision maker like preconceived notions, habits, and   so on.

(viii) Organizational factors like procedures, rules, channels of communication, and so on.

H. A. Simon's bounded rationality model of decision making can be illustrated as follows:
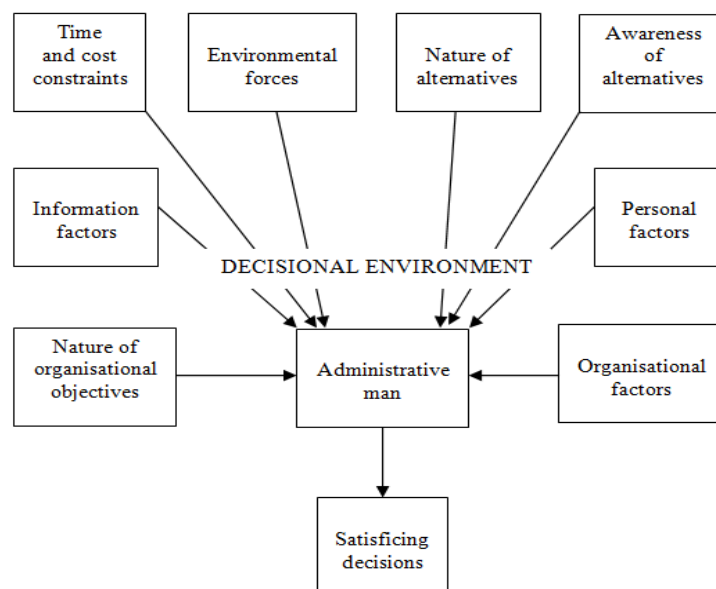
Figure 1.2: Herbert A. Simon's bounded rationality model of decision -making

Proposition of the model of administrative man

• In view of the above limitations, H. A. Simon proposes the **model of administrative man** as against the **model of economic man** who takes the maximizing decisions. According to him, **the administrative man**:

(a) In choosing between alternatives, tries to satisfy or look for the one which is satisfactorily or good enough;

(b) Recognizes that the world he perceives is **a drastically simplified model** of the real world;

(c) Can make his choice **without first determining all possible alternatives** and **without ascertaining** that these, in fact , are all the alternatives because he satisfies, rather than **maximizes**; and

(d) Is able to make decisions with **retatively simple rule of the thumb** because he teats the world as rather empty.

- Thus, the **'satisficing' administrative man** of **H. A. Simon** is **different from the 'optimising' economic man**, evolved by the classical economic theorists. He ends up with 'satisficing' as he does not have the ability to 'optimise' (maximise).
- However, **Chris Argyris** observes that H. A. Simon, **by insisting on rationality**, has **not recognized the role of intuition, tradition** and **faith** in **decision making**. He says that **Simon's** theory uses '**satisficing' to rationalize incompetence**.
- **Norton E. Long** and **Phillip Selznick** argue that **Simon's** distinction between **fact** and **values** revises in a new guise the discredited politics-administration dichotomy and considers bureaucracy as a neutral instrument.

3.6.2 Charles E. Lindblom's incremental model

- **Charles E. Lindblom** in his article the Science of Muddling through (1959) advocates the incremental model of decision-making. It is dramatically opposite to Herbert A. Simon's rational comprehensive model.
- **C. E. Lindblom** says that the actual decision making in administration is different from the way it is generally described in theory. He recognizes the practical problems and challenges in the rational comprehensive approach. He highlights the **various limitations** like **money, time information, politics,** and **others**, which govern the actual decision making process in the public administration.
- **Lindblom** opines that that decision makers always continue the existing policies and programmes with some additions. Thus, he argues that what actually occurs in administrative decisions is 'incrementalism' that is virtual continuation of the previous activities with few modifications. **The incremental model** is also known as '**branch technique'** or '**model of successive limited comparisons'** or '**step-by-step decision-makin**g'.
- Thus, **Lindblom** assumes that the past activities and experiences are sued by the administrators to make future decisions. He applies the **two concepts** to describe the actual decision making process in administration- (a) '**marginal incrementalism'** and (b) '**partisan mutual adjustment'**.

3.6.3 Amitai Etzioni's mixed –scanning model

- In his article *Mixed scanning: A third approach to Decision making* published in 1967, **Amitai Etzioni** has suggested an intermediate model that combines the elements of both rational comprehensive model (rationalism) and incrementalism.
- **Etizioni** broadly agrees with **Lindblom's criticism** of the rational model. However, he also says that incremental model is having two main drawbacks, viz:

(a) It discourages social innovation, and is thus partisan in approach, and
(b) It cannot be applied to fundamental decision. Hence, he advocates **a mixed scanning model.**

3.6.4 Yehezkel Dror's optimal model

- **Yehezkel Dror** in his book *Public Policy making Re-examined* suggests an optimal approach to policy making (decision making) and policy analysis. He claims that his 'optimal model' is superior to all the existing normative models of decision making and is a combination f economically rational model and extra-rational model.
- **Dror's optimal model** is a rationalist model of policy making, It has, according to Dror, **five major characteristics**; namely:

(a) It is qualitative and not quantitative.
(b) It contains both rational and **extra-rational** elements
(c) It is **basic rational to economically rational**
(d) It is concerned with **meta-policy making**.
(e) It contains **built in feedback**.

- **Dror** says that the optimal model has **three principal phases** that is:
➢ **meta-policy making;**
➢ **policy making;** and
➢ **post policy making**.
- **Dror** advocates the **speedy development of the policy science** to adequately solve the critical problems of society. In his words, "Policy science can be partly described as the discipline that searches for **policy knowledge**, that **seeks general policy issue knowledge** and **policy making knowledge**, and **integrates** them into a **distinct study**."

- **Dror,** in the words of **Rumki Basu**, "pleads for the adoption of the best policy by a **judicious evaluation of goals, values, alternatives, costs** and **benefits based on the maximum use of all available information and scientific technology**. He even recommends **extra-rational aids** to facilitate effective policy analysis".

VI.   SUMMARY

Decision making as one of the basic elements of administrative behaviour has been examined with reference to **Herbert A. Simon**, the foremost decision theorist in public administration. It means optimally, choosing one alternative from various alternatives available and is essentially problem solving in nature. It is also closely related to policy-making and planning, but they are not the same.

Relevant and leading scientists and scholars have been identified and their contributions analyzed. **Herbert A. Simon`s** bases of decision making were examined and compared to other leading scholars. Also **Simon's** three principal stages of decision making were looked at and compared to other writers. Further five typologies of decisions were identified and briefly elaborated upon to shed more clarifications. Again four models of decision making were identified and briefly substantiated on in order to enhance our scholarly understanding and in all fairness and honesty, **Herbert A. Simon`s** understanding of the concept of decision making; his original analytical ability and skill and his bounded rationality model of decision making in spite of some of its limitations have been insightful, creative, imaginative, innovative and penetrating.

The analysis of decision- making with reference to **Herbert A. Simon** does enhance over collective understanding of this deceptively simple, and yet very complex and elusive concept of decision making in political science and public administration.

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