

THE ROLE OF INTUITIVE DECISION MAKING, AMONGST WORKFORCE EXECUTIVES, ACROSS GENERATIONS

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Abstract:

The following research paper aims to study the role of intuition, and the impact it has on the workforce, specifically pertaining to decision making, and studying the generational differences within this context. The study is conducted amongst executives who have worked and managed a team, within their career experience. The population was taken in Chennai, and Pune, where a total sampling of 31 individuals responded to the questionnaire, sent out by the researcher. The study adapted the questionnaire from a pre-existing scale, namely, the 'Rational Experiential Inventory' or the 'REI'. In particular, a developed version of the 'REI', namely the 'REI-40', was used to formulate a new questionnaire. The questionnaire was sent out on google forms, arranged in a Likert scale format of options ranging from 'strongly agree' to 'strongly disagree', along with a separate section for the consent form. The two proposed hypotheses statements consist of; 1) The role of intuition has a positive effect on decision making, 2) The role of intuition is preferred amongst the older generations, as compared to the younger generation. The responses were then analysed through descriptive statistics, where they were specifically tested through the z test, to see whether the null hypothesis could be rejected, to indicate the validity of the proposed hypotheses. It was concluded that the second hypothesis should be rejected due to the statistical insignificance, and the first hypothesis could be affirmed, from the Likert scale analysis.

Keywords:

Intuition, Workforce, Generational Difference, Decision Making, Likert Scale

1. INTRODUCTION

This paper aims to study the attitudes of individuals (divided into two groups belonging to generation of baby boomers, and generation x) towards intuition, and its influence/effects on project management. Specifically, the paper aims to address particular subtopics like decision making, leadership, and analyze the particular variables through generational differences. It is significant in the current context due to the various value differences that exist in the workplace as well as at home between the two generations. Specifically, today's work culture involves multiple generational interactions and cooperation for successful functioning in work environment. According to a research paper [8], the work attitudes between generation x and baby boomers are distinguished as:

- *Gen x* - Importance given to Job promotion, Loyal to employer, Balance of work and family, Steady and rhythmic pacing, Formality (authority), Commitment, and Corporate paternalism.
- *Baby Boomers Generation* - Importance given to Job satisfaction, Loyal to skills, Quality of life, swiftness, Informality, Negotiation, and Empowerment.

It was also found due that, according to websites reviewed, the generation X was born between 1965 and 1976, and the baby boomers were born between 1946 and 1964. The findings will be useful for team leaders in the workforce as well as executives to understand the level of positive or negative impacts their decision-making abilities have. It is also useful for the employees, as well as workers in general, where they can see, whether relying on their intuitive abilities in making decisions can be effective.

2. LITERATURE REVIEW AND ANALYSIS

Firstly, the concept of intuition is defined through a research study [1], where it is seen as the 'affectively charged judgments that arise through rapid, nonconscious, and holistic associations' (p. 33). The paper also goes on to expand that intuition falls under the automatic processing system, under the dual information processing system. This is where a lot of experiential learning and automatic, unconscious, and effortless processing occurs, which can be important in the case of executive decision making, which generally is considered under logical or effortful processing. The process of intuition, is observed to be integrated with neuro-physiological systems that are associated with emotions [2]. The paper also reviews the effectiveness of intuition in decision making, where previous literatures suggest that intuition-based decisions are often error filled, and inaccurate, as well as effective if the conditions are correct. It is found that, in highly structured mathematical, and probabilistic situations, intuition proves to be error filled. However, in executive situations, where strategy, investment, and human resource management is involved, it proves to be effective in forming complex, domain relevant schemas [1].

In another study [12], the influence of the chosen intuitive decision style, and Individuals' tendency to use intuitive decision style, exhibiting in the domain specific way was explored. This paper provides insightful information on not only the preference to use the intuitive decision-making style, but also individuals' tendency to use intuitive decision-making style. The paper [12], also specifically elaborates that the domain specific way is influenced by either preference or expertise, where expertise and tendency to use intuitive decision-making style are linked together.

The role of intuition as seen specifically in terms of project management, was particularly addressed in a research paper titled 'The role of Intuition and improvisation in project management. In the paper [10], it was found in the results obtained, that greater usage of intuition was found in individuals/ managers with more experience. This is of significant relevance to the current study, due to indication of age/ experience being related to higher usage of intuition. This is one of main hypothesis that the current study aims to study, through generational difference. This paper also

concludes that the nature of a person's expertise does not relate to measure of intuition. This is useful to the current study, because, it eliminates the possibility of population, sampling-based error that may arise. Therefore, it also allows possibility of team leaders, as well as executives, to be participants. In [3], it was suggested that the intuition process in terms of managerial conditions, be studied through word counting, and the description of decision-making process by the participant, be made more comprehensive. It is also suggested to avoid errors created due to the questionnaire methodology. When using the word count method additionally, the method in [3] suggests that individuals relying highly on their intuitive capacity would not be able to use many words for description. These are found to be significantly relevant to the current study being conducted, where the individual descriptive perspective, allows lesser error, particularly in studying 'intuition'. According to Martinsuo [4], the decision-making process is viewed under the everyday project portfolio management, where the sub-optimization involved in these are then taken to be addressed through alternative decision-making styles, apart from the regular rational decision-making styles.

It is then observed that the assumptions associated with the process of decision making, and project portfolio management, require an overview, wherein, the day to day process involving decision making, is observed to not necessarily follow the rational decision-making process. It is seen to be dynamic, uncertain, and less rational, than what is generally assumed to be, in the everyday/practical scenarios, as pertaining to the workforce. The managers, task heads/ team leaders, that were in charge of the projects were then observed through various studies, where they were seen to not follow the guidelines or a rational structure in practice, in terms of project work/ team work. On the contrary, it was observed that the team leaders used intuitive, formalist-reactive, and integrative approaches to apply in practice. This is observed alternatively to the generally rational guideline-based approaches. This was seen to be a breakthrough, wherein the process was observed to be more 'political and path dependent', as opposed to the normatively suggested styles. It was also seen that the managerial decisions, and actions were taken, using intuitive, and negotiating processes [4]. Hence, the importance of intuition, as a process that is practically utilized, even under circumstances, and guidelines that suggest a more structured process, serves to point out the application usefulness of intuition. It also points out the automatic processes involved in the human cognition, that as humans, the conscious control aspect is seen to be not valid.

In the paper by Dane et al. [2], the aim of the study is seen to be in correlation with the current study discussed, where the effectiveness of intuition, in decision making, as compared to the rational decision-making processes are evaluated, and explored. The study points out that intuition was earlier viewed to contribute bias, whereas analytical decision making, was seen to be lesser exposed to bias. Hence, this directed the research in the past to follow these models of study. The study Dane et al. [2], further discusses findings through literature, where the importance, and accuracy of intuition, or the 'intelligence of the non-conscious', was observed. Dane et al. [2], were explored through addressing the conditions, where 'fast and frugal' heuristics can possibly influence effective decision making (p.187). Therefore, it is important here to understand that the proposition that intuition, as a process sometimes gets preferred alternatively, to analytical/rational processes. This makes to validate the process of intuition

in itself, as a sound theoretical investigation. It is also observed that this dimensional aspect of intuition requires validating empirical research to further verify the arguments derived from previous research, and literatures reviewed.

In [11], two processing styles are used, namely the Intuitive, and the deliberative processing style, which are applied in a deception detection task. The deception detection capacity of intuitive processes, was used to attribute better deception detection in this study, as compared to the traditional deliberative forms of processing. This can aid in creating an experimental, and empirical overview to the existing literature on intuitive processes, which mostly do not entail experimental study designs. In [11], through meta-analytic data, and findings, it was inferred that asking participants to use more holistic cues, judgments, to determine truth and lies, were found to be more effective in detection, as compared to directly implemented rationale of judgment. It was also seen that the intuitive modes of processing, were looked to be viewed as an affective or experimental, where it consists of effortless, spontaneous, and holistic, systems of processing [11]. On the contrary, the deliberative modes of processing, entails a more analytic process, which is observed to be slower in general, and it requires conscious effort. It was also observed and noted that a common error found in various research studies, seem to be that they dismissed the intuitive processes, and regarded it as the source of negative, and problematic outcomes [11]. In [11], also addresses the importance of both the processes, when it comes to decision making, whilst bringing up the importance of Intuitive processing, in the context of everyday decision-making, and also addressing the specific usage. Therefore, the study [11], went on to conduct two separate experiments, where the intuitive processing experiment was conducted on the participants through the 'thin slicing' mode, whereby the participants were made to observe thin slices of behavior, which were brief clips of expressive behavior. They were then asked to give judgments based on the incomplete information they had observed. The participants were randomly assigned to two groups, where one group viewed the thin slicing behavior, through five small clips, whereas, the other group was the control, where they viewed all the individual true or false statements, before providing a veracity judgment. It was also found from the previous reviewed literature, that the participants of a previous study, exploring the teaching effectiveness, could accurately predict the instructor's ratings teaching effectiveness, in the time framework of six seconds [11]. The following results were analyzed through an ANOVA test, and it was found that the participants in the thin slicing group were observed to show statistically significant difference, as compared to the control group. The difference was seen to be higher, where the thin slicing group showed higher accuracy in predictive behavior. It was also seen that the certain truth-based biases affected the deliberative processing, which caused a hike in the observed value. The aim here was to observe whether, through the manipulation of thin slicing behaviors shown to the participants, whether the deception detection performance may improve through this. Therefore, the final goal here was to determine whether the intuitive processing, might exhibit influence over deception detection performance, which was seen to be positively confirmed as seen by the statistics. Hence, this study aids in adapting an empirical overview to the current study, where the mode of analysis should be taken, along with the considerations of possible biases that may affect the data processing. This also contributes to the few literatures available,

that have analyzed intuition, through decision making, and assists the current study in identifying the limitations involved in studying intuition empirically. The current study, therefore should be open to rejection of hypothesis, due to limitations.

In [5], they study the relationship between the intuitive executive decision making, and the financial measures of a non-profit organization. Intuition is described to be a non-rational decision-making process, that is effective in dealing with the complexities of human problems and expands that rational decision-making processes can lead to oversimplification of human problems. The study goes on to find that executive intuition does have a significant role in influencing the financial situation in the non-profit organizations. This study is important due to the findings that indicate that leadership intuitive decision making has some form of impact on the organization. In another study (Salas, Rozen, and Diaz Granados, 2010), it was found that intuition contributed to expert decision making, where rapid and effective decisions making skills contributed to the organizations significantly.

In [7], the question of whether intuition leads to good decision making is explored. In [6], the author also studies it by applying gut-feeling in decision making, which is further explored.

2.1 HYPOTHESIS

From the literature reviewed, there are mainly two hypotheses that this study aims to propose.

- The role of intuition has a positive effect on decision making.
- The role of intuition is preferred amongst the older generations, as compared to the younger generation.

3. METHODOLOGY

Through the literature reviewed, it was found that the knowledge gap was that the specific studies in relation to generational differences was not found, as well as studies in relation to testing intuition in decision making in India, especially in the southern region of the country. Therefore, in the current study, the population will be taken from the southern region of the country, specifically Chennai, Tamil Nadu. In particular, the sector of civil engineering is taken, due to the availability of resources. The sampling would consist of around 30 participants (as that is the minimum required for a significant statistical analysis), who are either executive managers, or have led team projects, etc, would be selected in particular. Hence, the study aims to take a convenient sampling. Although the possible inaccuracies of this sampling are acknowledged, that is hoped to be compensated through the accuracy of the quantitative analysis aimed to be implemented in this study.

The study in [10] proposes to test intuition through the tool of 'REI' or 'Rational Experiential Inventory', where the experiential component of this test mainly tests the intuition aspect of the participants. In particular, the 'REI - 40', an edited and newer version of the original REI is decidedly suggested for usage. In the current study however, the hypothesis requires only the experiential or intuitive component of the test, and does not require the analytical component of the test. Hence, that part of

the REI-40 will be adapted, and new items will be formulated to test the participants [9].

The Newly formed Items in the Survey entail:

- I mostly trust my gut instincts to figure out problems in the office
- I do not think gut feelings help me in working with my team*
- I mostly evaluate my project situations with my team, using my sense of right or wrong gut feeling
- I think rational process can only get you so far, but intuition plays a big role in assisting my work
- I do not trust my gut feelings, when making decisions in my projects
- I prefer it when my intuition does not have a role in my work environment
- I value my gut instincts, and they usually lead me to better human resource management
- I think, as much as my hunches are accurate, they can be inaccurate
- I think Intuition plays an important role in problem solving
- I am inclined to depend on a person who describes himself/herself as intuitive
- I think it's foolish to make important decisions based on intuition
- I use my heart as guide in taking action, in regards to my workforce actions also

In the study, the number of respondents collected across generations came to thirty-one individuals. Then the analysis of the data will be either scored and then analysed through the 'alpha' or studied through charts, where the hypothesis will be studied as an in-depth research question, and see if the data collected supports the questions, and the possible propositions. The generations 'X', and 'Baby Boomers', will be analysed through null hypothesis, and see if the null hypothesis could be rejected. The literature has been further reviewed and analysed. There will be more literature analysed after the data is acquired completely, to support the necessary arguments.

4. RESULTS, ANALYSIS, AND DISCUSSION

The data in the set was first organized in google sheets, where the responses for each question was recorded. The responses recorded through a Likert Scale format was taken in terms of Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree. This was arranged in the same order, where in the sheets, they were scored from five, four, three, two, and one, in the same order, where Strongly Agree was the highest. In the case of items or statements being negatively framed, the scores were reversed, where Strongly Agree started from one, and Strongly Disagree ended with five. The google form had all the three main generations, as age categories to receive data from, where generation 'x', received the most responses of eighteen individuals, and generation 'y', or millennials received six respondents, and Baby Boomers received seven respondents. Then the baby boomers, and the generation x, values were taken separately, as X_2 and X_1 , respectively, for analysis. The two categories or generations were analysed through the Z test, where

the null hypothesis required X_1 to be equal to X_2 , ($X_1=X_2$). The hypothesis as proposed by the researcher in the current study required, X_1 to be less than X_2 , ($X_1<X_2$). This entailed the conditions wherein, the null hypothesis was termed ‘Ho’, and the alternate hypothesis was termed ‘Ha’, where the null hypothesis needed to be rejected. The rejection of null hypothesis ‘Ho’, was required here due to the need for confirmation of the alternate hypothesis ‘Ha’. The categories X_1 and X_2 , were then run through the descriptive statistics, where they were both taken in two separate tables, given below. The confidence level was determined, which was required to compare the Z test values to, where the confidence level for X_2 , is approximately 0.05, and for X_1 it is 0.02 or 0.03, in decimals. Then the Z test was conducted, where both the variables produced Z values, which is compared to the confidence levels found. The z value and the z critical, in the negative were compared to each other as well, where the z value was ‘-0.9807’, and the z critical value was ‘-0.1644’, which are both in negative, and the z value is higher than the z critical, which fails to reject the null hypothesis. The next value to be compared was the ‘P’ value, where it needed to be lesser than the alpha value, which is generally taken to be 0.05. The ‘P’ value that was found was ‘0.1633’, which is not lesser than the alpha, and hence that also fails to reject the null hypothesis. Therefore, the null hypothesis, is observed to not be rejected, and the alternate hypothesis is therefore not confirmed. Hence the alternate hypothesis, which is one of the main hypotheses considered, as part of the current study. This is deliberated to be due to the population not being sufficient enough, which is due to the executive population majorly consisting of only the generation x. The researcher also acknowledges that one of the major limitations of the study was that the respondents who were involved in the decision-making positions, were higher executives, who considered answering questions about their decision-making processes compromised their positions, and hence did not choose to respond. Therefore, the data analyzed consists of limited analysis, but it is still significant due to previous literature in this specific area of study was not observed to be in India. This also contributes to the biases observed as part of the study that might have influenced the study, where the results may be affected. The fact that this study did not take a random sampling in itself, creates a directive sampling, which could have created an omission bias, where certain minorities, and groups aren’t included. The data collected is not a representative sample of the executives, and it excludes other employees, in the company itself, whereas including the other minority may also cause error in data. Hence, this needs further research to create a more empirical analysis for this specific directive population. In not being able to positively affirm one of the hypotheses, the research requires further population verification for future studies. The items in the research also have not been tested for reliability, and validity, where these two factors are important to make any scale, or questionnaire more empirical. Further on, this leads to one of the major limitations faced by the researcher in the current study, which was the lack of availability of resources, and empirical scales, data, which were available to adapt or even be directly implemented. Hence, the questionnaire or survey had to be specifically constructed for the study, and the inter-item correlation, and the validity of the scale, was not available. The inter-item correlation was also not feasible for the researcher due to the advanced statistical analysis involved, and required for that process.

Table.1. Analysis of variables using z-test

	Variable 1	Variable 2
Mean	40.11111111	37.71428571
Known Variance	29.75163399	30.23809524
Observations	18	7
Hypothesized Mean Difference	0	
z	0.9807420854	(Fail to reject)
P(Z<=z) one-tail	0.1633599722	(Fail to reject)
z Critical one-tail	1.644853627	
P(Z<=z) two-tail	0.3267199444	
z Critical two-tail	1.959963985	

Table.2 Analysis of X_1

Variables of X_1	Value
Mean	40.11111111
Standard Error	1.285639356
Median	39.5
Mode	48
Standard Deviation	5.454505843
Sample Variance	29.75163399
Kurtosis	-1.319282593
Skewness	0.1106673605
Range	16
Minimum	32
Maximum	48
Sum	722
Count	18
Largest (1)	48
Smallest (1)	32
Confidence	2.712461917

Table.3 Analysis of X_2

Variables of X_2	Value
Mean	37.71428571
Standard Error	2.078395509
Median	36
Mode	36
Standard Deviation	5.498917642
Sample Variance	30.23809524
Kurtosis	-0.899496311
Skewness	0.5608548243
Range	15
Minimum	31

Maximum	46
Sum	264
Count	7
Largest (1)	46
Smallest (1)	31
Confidence level (95%)	5.085650592

The first hypothesis, which states that the role of intuition has a positive effect on decision making, is explored in the study through the Likert Scale analysis, where the scoring for this is the same as the above scoring, where the negative statements are reverse scored. The total value across each row was calculated where the highest or maximum value across was found to be '48'. This data was analyzed across generations, where the total data gathered was taken, that is all the thirty-one respondents. Since the 'strongly agree' and agree are either five or four, and others are negatively scored, the higher the value found, that suggests that the first hypothesis is positively affirmed. The total possible is calculated, where the highest value, five, is multiplied with the total number of items present, which is twelve. Hence, that gives a total value of sixty. The highest value calculated in the individual totals found is forty-eight, which is closer to sixty. Hence, it is positively affirmed that through the answers of the respondents given, the first hypothesis that the role of intuition has a positive effect on decision making. Although the hypothesis was affirmed, the limitations need to be explored, for further research, and accuracy of current research. Therefore, one of the limitations that need to be explored here is the respondent bias, where the respondents may have answered what was expected of them, then what they actually feel, which can cause a difference in scoring. Although, this may not be a concern here due to the executive position, and the assertiveness expected in such position, as inferred by the researcher. The data analyzed through the Likert scale also needs more empirical analysis in general, and in this specific case concerning the concept of intuition, it needs more empirical analysis to confirm, and validate the research. The Likert scale analysis only confirmed part of the hypotheses tested, whereas, the need for population cooperation is also observed to be necessary in this component of the analysis also, where it is likely to be more accurate with a higher population. The scoring may show a more precisely higher number, in relation to the total number, as inferred by the researcher.

5. CONCLUSIONS AND SUGGESTIONS

To conclude, the secondary research supports the hypothesis that suggest a positive effect of intuition on decision making in general, whereas when seen in terms of generational differences, the statistical data found shows that the analysis shows insignificant relationship between the baby boomer generation and generation x, and hence it cannot be determined whether older generations show a higher preference to intuition-based decision-making process, as compared to younger generations. Therefore, the current research requires further data, and empirical research to exhibit, reliability and validity. Although the contribution of the current study however, is observed to be that, it is one of the

only researches of this type in India, where it has contributed to opening this field of research and further investigation/analysis. The intuitive processes are holistic, and both the primary, and secondary research provides sufficient data to suggest that intuitive processes contribute to effective decision making across age group in the workforce. Intuition has also been observed in various studies, to be explored in unscientifically, which led to the rejection of the idea of intuition, and the various uses of intuition in the actual application, and field situation. Hence, to conclude, the researcher infers that thorough analysis of any domain, such as the one studied, can transform, and transcend biased information, and change it to usable, valuable resources.

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