Use of Intuition in Decision Making Among Managers in Banking and Industrial Sectors of Karachi

Khailda Rauf

Federal Urdu University

The study aims to explore the decision making processes of managers, working in banking and industrial sector in Karachi. Grounded theory research design is chosen to discover the ways in which managers choose to rely on intuition in decision making process. The proposed method consists of structured interview. The participants were theoretically selected, consists of 306 managers, aged 25 to 60 years (M = 47.89, SD = 17.58), 152 managers from banks and 154 from utility sector. All the responses were coded, then percentages of each response were calculated. Information generated through responses suggests that the use of intuition among managers is caused by uncertain situation and they develop work groups to make effective decisions in face of critical situation. It is hoped that outcomes of this study will allow us to develop better decision making strategies for the training of future managers.

Keywords: Decision making, Intuitive decision making, banking sector and industrial sector

Human beings are required to make decisions most of the time as they are faced with problems, formally and informally. Managers, politicians, social workers, economists have to consciously engage in decision making as they are faced with different problems crucial to their area which needs to be solved for their survival in their respective fields (Milkman, Chugh, & Bazerman, 2008). That is why the area of decision making needs systematic analysis, in order to explore several decision making strategies well suited to one's area. Most of the academic research in decision making is about managerial

Khalida Rauf, Federal Urdu University, Karachi, Pakistan.

Correspondence concerning this article should be addressed to Khalida Rauf, Department of Psychology, Federal Urdu University for Arts, Science and Technology, Abdul Haque Campus, Karachi, Pakistan. E-mail: drkhalidrauf@yahoo.com

decision making in the organization. Managers all the time are faced with hiring, firing, promoting, implementing, investing problems for which they need to make appropriate choices. Decisions like these as well as strategic and operational are made with different techniques like rational, intuitive and heuristics. Decisions are made about external events which constitute our environments (Olivera, 2007). According to Plato the environment and reality exists as it is perceived by the decision maker rather than the reality which is as it is portrayed on the wall (Lee, 1955).

Decision making is basic to all management functions as Aristotle puts it that decision making is the process by which an end determines the means, i.e., the process of choosing a goal and taking the action necessary to achieve the goal. As reported in literature, whatever a manager does, he does through decision making. His managerial ability is gauged through his ability to make quality decisions. During performing his planning function, he prepares alternative plans to solve the problem best suited to the business environment. The same accuracy for decision making is required while performing other managerial functions such as organizing, directing and controlling. Without decision making no action could be taken to maximize the outcomes (Drucker, 1954).

Literature proposes different models of decision making to protect the individual from making decision biases. Despite following rational decision making strategies, in order to optimize benefits and reduce costs, people fail to collect relevant information which results in the losses to the individual, organization and society, such outcomes are generally the result of perceptual biases which the decision maker falls prey to (Milkman et al, 2008). The knowledge which we require to make decisions is in the form of schemas which we have accumulated over a period of time. So schema is a cognitive structure that represents knowledge about particular domain and area (Fiske & Taylor, 1991). The accumulated past experience in the relevant domain constitute our knowledge, which greatly affects our future decisions (Juluisson, Karlssan, & Garling, 2005). These schemas may be in the form of mental shortcuts relieves the decision maker from the complexity of generating alternative and calculating probabilities leading to expected outcome (Traversky Kahnmann, 1974).

Heuristics

Heuristics are time effective judgments but at the same time, these are error prone. Among these, common ones are anchoring bias,

representative bias, availability bias and adjustment biases (Shah & Oppenheim, 2008). Representative bias is when a particular brand is found to be useful and helpful we tend to repeat it in future rather than making new choices. People go for heuristic, when they are faced with events sharing familiar characteristics; they choose the one which is most recognizable (Pachur & Hertwig, 2006). When people make budget about the current year, they take last year's budget as precedent (Sibony, 2013). Availability bias consists of people retrieving information which is readily available to them (Redelmeier, 2005). Many human resource managers, when making performance appraisal, focus on recent performance which is directly accessible to their memory (Robbins, Judge & Sanghi, 2012). And the Anchoring bias is a tendency to base a decision on an anchor then adjustments is made around that point (www.opimweb.wharton.upenn.edu). This type of heuristic is widely used in negotiation, for example, when a manager asks you an unexpected salary, you try to set it realistically high because only around that proposed salary adjustment is made (Robbins et al., 2012).

These heuristics do minimize our effort but are insufficient when making decision requiring strategy making, designing a product, launching a campaign, setting budget for a project. Reliance on heuristics incurs cost to the decision maker. Bernard (1938) identified two modes of thinking. One is identified as non-conscious and non-logical. The former one is referred to as intuitive information processing, which is also known as System 1 cognitive function. The later one is referred to as rational information processing, which is also known as System 2 cognitive function (Stanovich & West, 2000).

Intuitive Decision Making

Hogarth (2001) explained intuitive information processing as the one which allows individuals to learn from experiences and arrive at perception of knowledge without conscious effort. According to Bargh and Chartrand (1999) most of our everyday decisions made this way. Epstein (2002), Epstein, Pacini, Denes-Raj and Hesier (1996); and Epstein and Pacini (1999) described the second system as rational. In this type of thinking the decision maker generates number of alternatives then assigns value to each alternative. The decision rests with the alternative generating highest probability of outcome (Goodwin & Wright, 1998; Hoch, Kunreuther, & Gunther, 2001).

82 RAUF

Solso (2005) stated that human beings are not perfectly rational creatures. Cohen (1987) argued that rationality is not relevant to common man as they are not sophisticated in laws of probability. Kahnmann (2003) maintained that human beings have limited capacity for information processing. Few probabilities are so complex that these can not be understood by everyone so they reduce to manageable level by reducing it to satisfactory level that is why Simon (1997) stated that we can not find optimal solutions for complex problems, we fail to generate all possible alternatives. Mostly we do is to list down familiar criteria rather than a totally new one that offers satisfactory solution. Gigerenzer (2008) stated that using satisfying formula is quite practical and not far from sensible because it is less than practical for a common man to list down all the options, assign weight and then calculate scores for each criterion. The entire process is time, money and energy consuming.

Peters and Waterman (1982) identified the rational decision making model as the cause of problems for US firms in 1970s, and 1980s. The same criticism has been raised by Mintzberg (1994), he stated that rational model is analytic in nature whereas strategic planning is synthetic in nature, that is why the use of former has failed. Pondy (1983), Simon (1987), and Prietula and Simon (1989) pointed out that cognitive psychology and artificial intelligence clarify that intuition is not irrational but evolve from long experience and learning (Agor, 1990; Harung, 1993; Isenberg, 1984; Kleinmuntz, 1990; Paprika, 2010; Roy & Myers, 1990; Seebo, 1993) based on facts, pattern techniques which constitute formal knowledge.

Literature on decision making abounds in rationality particularly during the last ten years, whereas, decisions driven by intuition were ignored (Paprika, 2010). Intuition has been well defined by Parikh (1994, p. 38) as something which consists of "accessing the internal reservoir of cumulative experience and expertise develop over a period of years, and distilling out of that a response, or an urge to do or not to do something, or choose from some alternatives- again without being able to understand consciously how we get the answers". Bacon (2013) quoted Gorden writing in her book "Intelligent Memory" that intuition and decision making are linked with each other.

Aspects of intuition

Looking into the aspects of intuitions following aspects are prominent in literature:

Non conscious. has been defined intuition as "the psychological function which transmits perceptions in an unconscious way" (Jung, 1933). At another place intuition has been described as a biological process or physical sensation through which we get closer to our subconscious, we acquire knowledge, i.e., we learn and through experience this knowledge and learning is translated into action (Kovacic, Bulc, & Balletino, 2013). Epstein and Pacini (1999) explained intuition as crude though efficient system for automatically and effortlessly processing information while placing little demands on cognitive resources, the system can be a source of intuitive wisdom and creativity. Similar assertion has been made by Shapiro and Spence (1997) that when we make intuitive judgments we are not aware that how do we reach that decision.

Holistic association. The intuitive process consists of matching environmental stimuli with some existing pattern of past experiences. This matching and linking of present and past patterns is known associative (Epstein, 1994; Epstein, et al. 1996; & Kahnmann, 2003). These links are not made through logical connections; rather it is viewed as holistic (Epstein, 1990; Shapiro & Spence, 1997). Intuitive judgments involve recognition of numerous patterns stored in long term memory retrieval without conscious effort (Agor, 1989, Shirley & Langan-Fax, 1996). Researches focusing on this aspect of intuition states that experts use highly complex cognitive structures that allow accurate responses to demanding situations, like surgeons making decision in operation theatre or chess master playing competitive games. A considerable body of researches maintains that holistic connections are to be made between stimuli and cognitive structure during intuition (Dreyfus & Dreyfus, 1986; Klein, 1998; Simon & Chase, 1973).

Speed. Wild (1938) identified speed as the central concept of intuition. Rorty (1967) explains intuition as process of immediate apprehension. Osbeck (2001) in his review of philosophical literature mentioned Locke's and Hume's notion of intuition as the immediate perception of connection between ideas. Eisenhardt, (1989) stated the need for quality decisions in a short span of time as the quality and speed of decision is inversely related. There has always been a need to develop time effective decision making strategies. Moreover, Agor (1986), Burke and Miller (1999); and, Khatri and Ng. (2000) pointed to speed as the main reason for using intuitive decision making in organization.

Affective judgments. The layman's term gut-feeling, generally used as synonymous for intuition, reflect that intuition has some feeling aspect (Hayashi, 2001; Shapiro & Spence, 1997). This has further been supported by Agor (1986) that managers feel excitement when they make judgments. Park and Banaji (2000); and Isen (2000) reported that people in positive mood find good solutions to problems.

Weiss and Cropanzano, (1996) further strengthened this link stating association between positive mood and intuition. Ray & Myers (1990) on the contrary reported that emotion of fear and anxiety interferes with the process of intuition. Goodwin and Wright (2001) recommended the use of emotion in decision making by reinstating the problem which allows decision maker to look at the problem in different mood and process information which might otherwise is over sighted. The second recommendation is scenario planning in which emergency is anticipated then alternatives are evaluated and generated without pressure. Epstein (1990) described cognitive framework as consisting of schemas which are inductively derived from emotion laden experience.

Link between intuition and emotion has been well documented in neuroscience research by Lieberman (2000) stating that both the processes involve the activation of basal ganglia in human brain. The literature from neurological, cognitive and organizational perspective supports the link between emotion and intuition in decision making.

According to Kovacic, Bulc, and Balletino (2013) due to its physical and sensory nature, emotion could be viewed as soft tissues through which current of intuition, learning and action pass. This emotion plays a pivotal role in the interpretation of knowledge, experience and wisdom. With the emerging trends at the turn of millennium when innovation as a strategy is taking its share, the need for emotional and spiritual capital along with physical, intellectual and social capital is increasing.

Intuitive capacities flourish in the environment which rewards success rather than penalizing losses. Scharmer (2008) writes that intuition based decision making model was tested in a company with 3000 employees. The results showed that problems in sales department were solved with innovative method using intuition. According to Shah and Horne (2012), 19 percent of employees rely on intuition, 43 percent use analysis for decision making, the rest use both the two strategies for making decisions.

Dane and Pratt (2007) pointed that literature during the past few decades focused on heuristic based errors. This particularly happens

when individuals lack relevant domain knowledge and complex schemas while making decisions. Kruger and Dunning (1999) reported the link between, lacks of domain knowledge and inflated self assessments of one's ability. Dreyfus and Dreyfus (1986) stated that experts possess numerous and complex schemas relevant to their field based on long experience. It was further discovered in Simon and Chase's (1973) study that chess board players are capable of playing several games at the same time. Experts have information in the form of patterns and schemas which they resort to during different operations (Simon, 1996). Researches also supports that these expert's schemas should be domain relevant if similar schemas are used in different domain, it may mar the quality of judgment (Dane & Pratt, 2007). The other feature which affects the quality of intuitive decision making is task characteristic. If the problem is very well defined and structured, calculations are easy to make and probabilities and utilities are easily gauged, thus these problem seem sensitive to rational decision making (Claxton, 1998; Hayashi, 2001). Whereas, if the problem is ill defined, less structured and leading to disparate elements experts may resort to use of intuition (Shapiro & Spence, 1997).

The last distinction is made by Mac Gregor, Lichtenstein, and Slovic (1998), and McMackin and Slovic (2000). They stated when working on judgmental tasks: intuitive process seems superior and rational methods prove superior when working on intellectual tasks.

Rational Decision Making Model

Oliveira (2007) defined rationality as a compromise between choice and value, while following rational decision making, the decision maker optimizes the value of the outcomes focusing on the process of choosing rather emphasizing the selected alternative. According to this model, rational, consistent, value maximizing choices with certain constraints are likely to lead to reasonable decisions (Simon, 1986). In 1999, Harrison writes in his book. "The Managerial Decision Making Process" that this model consists of six steps which include: Defining the problem, allocating weights to criteria, developing the alternatives, evaluating the alternatives, and selecting the best alternative.

The rational model rests on the assumption that decision maker has complete information on a problem and proceeds in an unbiased manner. But researchers like Hoch et al., (2001) brought to light the reality that people hardly make rational choices particularly under

86 RAUF

uncertain and unexpected situation when they disregard probabilities and make satisfactory choices.

So keeping in view the above literature, the present paper aims to discover the processes which managers use while making decisions in uncertain environment which necessitates them to develop work design that maximize their ability to make decisions well suited to the critical environment and identify the causal factors (time pressures and risk aversion) which promote the use of intuitive decisions in services and utility sectors in Karachi. It is imperative to examine that Pakistan as an economically unstable and risk aversive society, what processes of decision making are employed to maximize businesses.

Research question tried to identify the processes which managers choose to use intuition and those factors which facilitate the use of intuition in the managers of banking and utility sectors. The detail of research questions is discussed in result section. These questions are based on following broader dimension:

- 1. What processes underlie the decision making of managers in banking and utility sector?
- 2. What are the causal factors of the use of intuition in the decision process of managers?
- 3. Is age related to the use of specific decision process?
- 4. Does gender affect the choice of decision process?

Method

The present study aims to examine the decision making processes of managers in banking and utility sectors of Karachi, it also tries to discover the causal conditions such as unstructured situation, critical situation and time pressures which trigger the use of intuition in making decision. Grounded theory design is chosen as to get qualitative information regarding the ways in which managers choose to rely on intuition in decision making process.

Sample

The sample was theoretically drawn. The participants include 306 managers, 152 from banking sector and 154 from utility sector. Out of these, 72 were male from utility sector and 28 female from the same sector. In banking sector, 76 were male and 24 female from the same sector. The age ranges from 25-60 years (Mean age = 47.89, SD = 17.58).

Instrument

Structured interview was taken, which includes information on age, gender, and organization. It further explores about the causal factors such as risk, time pressures and uncertainty which lead to the use of intuition in decision making processes of managers in both the sectors. It also explores the use of initiatives and work styles which facilitates the use of intuition and reliance on the use of experience as a precursor of intuition. In addition to these, descriptive detailed information on these variables was encouraged.

Procedure

The purpose of the study was shared with participants. After the agreement, interview was initiated, even though the interview was structured, detailed responses were also encouraged to get clearer picture of the factors developing the need of intuition in decision making of managers.

Results and Discussion

All the responses were coded and entered into SPSS15.00. Percentages for every answer were calculated for descriptive analysis supported by information gathered through unstructured interview as well. The answers for 15 questions are discussed and supporting literature has also been reported in following section. Further, age and gender-wise differences are also calculated.

Table 1
Response percentages for feeling uneasy in face of critical situation

Responses	Utility sector%	Banking sector%
Yes	59.4	60.3
No	29.00	32.5
Never	11.6	7.3
Total	100	100

88 RAUF

Table 2
Frequency of critical situation at the workplace

Frequency	Utility sector%	Banking sector%
Everyday	16.4	9.98
Every week	36.2	41.7
Every month	47.3	48.3
Total	100	100

The analyses of results in Table 1 shows that to Q1, inquires about the state of uneasiness in face of critical situation, majority of managers reported that they feel uneasy in face of critical situation, whereas, 32.5% to 29% denied the negative experience to this question respectively.

Q2 relates to the frequency of critical situation. Table 2 shows 48.3% responded that the occurrence of critical situation every month from the banking sector and 47.3% from the industries sector, i.e., the situation is identified as uncertain most of the time.

Table 3

Percentages of Factors contributing to uneasiness at the workplace

Factors	Utility sector%	Banking sector%
Risk pressures	35.3	53
Uncertainty	64.7	47
Total	100	100

Q3. Relates to the factors which results in uneasiness at the workplace, to which banking sector replied with uncertainty and industrial sector replied with risk pressures, the same has been reported by Hensman and Sadler-Smith (2011), who used indepth and semi structured interviews to examine the decision making of 100 banks, they discovered that bankers heavily rely on intuition is determined by the nature of the task, individual factors and organizational context.

Table 4

Percentages for using initiatives at the workplace

Responses	Utility sector%	Banking sector%
Yes	36.5	31.1
No	13.9	12.6
Not always	49.5	56.3
Total	100	100

Table 5
Percentages of aspects of work triggering the use of intuition

Aspects of Work	Utility sector%	Banking sector%
Challenging work	36.7	49.7
Routine work	27.5	18.5
Work not properly defined	35.7	31.8
Total	100	100

Q4 pertains to the use of initiation under situations mentioned in Q3, to which 56.3% denied the use of initiation at all from banking sector and 49.5% from industrial sector. Q5 explored the nature of work that leads the employee to use intuition, to which 36.7% and 35.7% replied with challenging and unstructured work respectively, whereas routine work was identified as the type of the work least leading to the use of intuition, i.e., 27.5% from industrial sector. In banking sector, 49.7% identified challenging work as the trigger of intuition and 31.8% and 18.5% for undefined working situation and routine work respectively. This has been stated repeatedly in the literature that ill structured environment trigger the use of intuition. When time pressure is high and time for rational decision is low then people have to resort to intuitive decision making.

Table 6
Preferred work style in case of intuition

Work Style	Utility sector%	Banking sector%
Working individually	38.3	33.1
Working with team	44.2	57.7
Working as cross functional teams	17.5	15.2
Total	100	100

Table 7

Percentages of people who opt for intuition

Type of People	Utility sector%	Banking sector%
People having intense mood	18.4	21.2
People having positive hope	56	49
People working under pressure	25.6	29.8
Total	100	100

Q6 inquires about the style of work which is most suitable in applying intuition. Working with teams is viewed as most suitable by the banking sector and lesser by utility sector, followed by working individually and least preferred working condition is reported to be cross functional teams. Khatri and Ng (2000) concluded in their study that intuition has negative relationship with performance in stable environment and positive relationship with unstable environment. Moreover, Eisenhardt (1989), Judge and Miller (1991) reported that high velocity environment facilitates the use of intuition. At another place, it is stated that non programmed and intuitive decisions are made in turbulent and unpredictable environment mostly by top managers, whereas, programmed decisions are followed through policy directives, rules and procedures usually made by middle and operational level managers).

In Q7, respondents reported the use of intuition by people who work under intense pressure i.e., 25.6% and 29.8% respectively in industrial and banking sector. Khatri and Ng (2000) also reported the use of "gut feeling" in computer industry as compared to banking and utilities. Another study by Catford (1987) reported that intuition is widely used as a business tool. Majundar (2012) in his article quoted Mintzberg, who writes that entrepreneurs generally rely on intuitive decision making or they rest their decisions on realities that confirm their intuition only.

Table 8

Percentages of using intuition in case of successful attempt

Cases	Utility sector%	Banking sector%
Will you apply again it in a different situation	28.5	31.1
Rely on experience in different situation	56	46.4
Seek for guidance in a different situation	15.5	22.5
Total	100	100

Q8 inquires about the successful use of intuition. 56% of respondents prefer to rely on experience from industrial sector and 46.4% from banking sector instead of seeking guidance and applying in different situation. Paprika (2010) reported that executives rely on rational methods whereas entrepreneurs mostly relied on their intuition in Hungarian and US culture. Since entrepreneurs feel more comfortable with using intuition, we see that 56% of entrepreneurs with positive hope reported the use of intuition. Khatri and Ng (2000) used seven points scale to gauge the average value of experience,

which was 5.66 in computer industry, showing the extensive use of intuition in both sectors.

Table 9

Percentages of the background factors that build the foundation of using intuition

Background	Utility sector%	Banking sector%
Family	10.6	34.4
Culture	17.4	19.9
Both	72	45.7
Total	100	100

Q 9 identified the role of culture and family in promoting the use of intuition i.e., 72% and 45.7% in industrial and banking sector respectively. According to Cyert and March (1963), Hofstede, (2001) people belonging to cultures with low emphasis on "uncertainty avoidance", feel comfortable with ambiguity, since intuitive judgments also involve unknown levels of risk, they are more inclined to use intuition than people belonging to other cultures. Organizational system in Japan promotes the use of consensus, whereas in American culture individualistic trends are appreciated and reliance is more on quantitative methods.

Table 10

Percentages of activities that best defines experience

Experience	Utility sector%	Banking sector%
Past activities, events, incidents	37.2	27.8
Valuable lessons learned	43.5	48.3
Decisions based on intuition	19.3	23.8
Total	100	100

Table 11
Percentages of situations that emphasize on using experience

Situations	Utility sector%	Banking sector%
New situation	20.3	27.8
Difficult situation	27.1	39.7
Challenging situation	52.7	32.5
Total	100	100

Q10 inquires about the meaning of experience to which 43.5% and 48.3% reported that lessons learned in the past constitute experience in industrial and banking sector respectively, these percentages are consistent with the percentages found for Q8 which supports the heavy weightage assigned to experience variable.

Q11 inquires about the type of the situation which calls for the use of experience to which 52.7% from industrial sector reported that in challenging situation they rely heavily on experience, whereas, 39.7% from banking sector reported difficult situation, where they rely on experience most. These percentages are supported by the conjecture given by Cyert & March (1963); Hofstede (2001) risk taking is more common in uncertain situation. This also support the percentages obtained for Q5, both the questions support the use of intuition in unstructured environment (Shapiro & Spence, 1997).

Table12

Percentages for weighing experience in job application

Responses	Utility sector%	Banking sector%
Better decision making	27.5	25.2
A knowhow of working environment	12.3	9.3
Possibility of low mistakes	7.4	9.3
All	52.9	56.3
Total	100	100

Table 13

Percentages of relying on experience

Responses	Utility sector%	Banking sector%
Yes	17.9	7.9
No	16.9	27.8
May be	65.2	64.2
Total	100	100

Q12 pointed out that experience is emphasized in hiring to make better decisions, 27.5%, to have the knowhow of working environment and also due to the possibility of low mistakes, 57.4%, and all these factors are identified as the reason behind emphasizing experience, 52.9%. While responding to Q13, 65.2% and 14.2% from industrial and banking sectors, the respondents seem uncertain about the use of experience.

Table 14

Percentages of use of experience help an individual in following activities

Activities	Utility sector%	Banking sector%
Reduce task	24.6	22.5
Play safe	41.5	52.3
Avoid the problem at hand	33.8	25.2
Total	100	100

Like Q8 and 1, Q14 also show greater belief in using experience because 41.5% and 52.3% think it is safer to use experience. Experience seems to underlie the use of intuition because complex schemas are accumulated through sustained practice in relevant field. Whenever they are faced with critical or challenging situation, they automatically resort to their reservoir of experience. (Simon, 1996; Simon & Chase, 1973). Naoyuki (2011) found that employees working at the headquarters prefer to use solid data in making lending decisions, whereas, branch level employees use intuition and borrower's behavior.

Table 15

Percentages of choice when faced with critical situation at the workplace

Choices	Utility sector%	Banking sector%
Apply your own intuition	42	49.7
Rely on experience	58	50.3
Total	100	100

While responding from industrial sector to Q15, 58% of respondents report that they rely on experience when faced with critical situation and 50.3% from banking sector responded the same.

Coget and Keller (2010) reported that an emergency room doctors like managers should give equal attention to analytical solution and intuition under the emotional condition of emergency room and challenging situation.

Q15 inquires about the factor which inculcates the use of experience; according to Oluwasusuyi (2011), Malaysian male supervisors are less inclined to use intuition than US male supervisors. Cultural effects are reflected in these results. More of the entrepreneurs attributed the use of culture to intuition, whereas, bankers attribute it to family. Moreover, Malaysians male supervisors seem less inclined toward the use of intuition than the US female

supervisors. Cultures low in ambiguity tolerance do not support the use of risk taking and tend to rely on quantitative and analytical style of problem solving, whereas, cultures low on masculinity favors the use of intuition as Hofstede (2001) reported that feminine culture favors managers to use intuition.

Table 16

Percentages of different age groups

Age-ranges	Utility sector%	Banking sector%
18-30	31.8	31.8
30-45	51.1	54.3
45-60	14.5	11.9
>60	2.5	2
Total	100	100

Table 17

Percentages of gender in the sample

Gender	Utility sector%	Banking sector%
Male	72	75.5
Female	28	24.5
Total	100	100

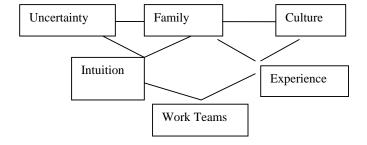
Q16 and 17 deal with age and gender wise differences. The finding in Table 16 and 17 are discussed as follows:

Age. Most of the respondents from both the sectors were between the ages of 30 to 45, 51.1% and 54.3% from entrepreneurs and banking sectors and 2.5 and 2% were above 60.Researches show that at least ten years of experience is necessary for developing expertise in relevant field (Ericsson, & Charness, 1994; Ericsson, Krampe, &Teach-Romer, 1993). Finucane et al (2005) reported the as most of the functions decline with age so is the decision making functions which declines with age. Moreover, Reed, Mikels and Simon (2008) reported that adults use fewer choices than younger adults. De Bruin, Parker and Fischhoff (2007) reported that adults seem more confident regarding their decision making ability, which allows them to make quicker decisions as a result of accumulated experience rather their applying long strategies. Duration and repetition of practice may lead managers to use intuition (Khatri & Ng, 2000).

In eastern cultures age has an advantage due to experience and wisdom, whereas, age is not correlated to wisdom in western culture.

Gender. 75% of respondents were male and 25% were female, almost all the female respondents were from banking sector. Brenner and Bromer (1981) described men as more analytical and women as more intuitive. Clare (1999) also supported this statement by describing women as more intuitive in their management style. Studies validating the effect of stereotyping do not support this result. Furthermore, Donnell and Hall (as cited in Oluwabusuyi, 2011) reported no significant differences between male and female managers. In eastern culture woman is restricted to certain roles and they have little to say in decision making, on the other hand in western culture gender differences are invisible.

Through the analysis of responses, it was discovered that regardless of the sector, managers mostly face uncertain situations in their workplace which makes them feel uneasy, the law and order situation again is not smooth in the city, the environment is one of turbulent, no economic stability is found, therefore the prevailing situation is perceived as critical and uncertain that is why managers reported the use of intuition in their decision making processes. However, the literature supports the notion that entrepreneurs rely more on intuition as compared to the bank managers. Whereas the difference found in the present sample is negligible and largely attributable to the situation in the city. Under these circumstances they prefer the work styles of teams in banks, where the responsibility of decision is shared. The entrepreneurs depending upon the nature of their business tend to make decision on individual basis, since they are the sole proprietors of their business. Managers from both the sectors reported the influence of family and culture equally as the forming agent for reliance on intuition. In the light of above discussion the following model can be drawn.



Limitations and Suggestions

The present study was restricted to one city only. The sample is also affected by the political and social environment. It would be better to include sample from different cities in future research, so the influence of political instability leading to economic instability could be ruled out. Moreover, the effect of culture in the form of different ethnic groups should also be addressed in the future research, in order to get more accurate conclusions about preferred decision making strategies.

Conclusion

The present paper discusses different kinds of decision making strategies i.e., heuristics, rational and intuitive decision making. It was discovered that heuristics are cognitive shortcuts. Rational decision making is quantitative, logical, analytical and exhaustive strategy to make decisions. Intuitive decision making strategy is defined as speedy, non conscious processes which derives decisions from accumulated cognitive maps of domain relevant knowledge in affectively charged environment. Results show that when respondents feel uncertain at the workplace or the situation appears challenging they prefer to work in team, with positive hope, they prefer to play safe and rely heavily on experience, which is definitely not true for new comers since they lack sustained knowledge in relevant domains, that is why experience is emphasized in hiring decisions also even for novice in the form of internships which is mandatory in business and training institutes.

The current arena is that of job mobility, where professional environment is more of a fluid kind which again prevents accumulation of knowledge and experience in one organization. The future implication drawn from this research is that organization should try to retain knowledgeable workers by giving high incentives to prevent turnover. Retaining specialized workers is challenge in knowledge based economy. Different organizations in the relevant field are on lookout for experienced workers. Moreover, organizations should promote the culture of mentoring, knowledge from expertise be transferred to novice by making them working together. Since entrepreneurs rely more on intuition rather than rational processes. By pairing them together the young managers will be trained to make

intuitive decisions as well because economy does not remain stable all the time rather in turbulent situations, they need to rely on intuition rather than rationality.

References

- Agor, W. A. (1986). The logic of intuition: How top executives make important decisions. *Organizational Dynamics*, 14(3), 5-18.
- Agor, W. A. (1989). Intuition in organization: Leading and managing productivity. Newbury Park, CA: Sage. Retrieved from http://management.ut.ac.ir/my_doc/managementut/asatid/pages-asatid/ gholipour/Article%2520Review/
- Agor, W. A. (1990). *Intuition in organizations: Leading and managing productively*. Newbury Park, California: Sage.
- Bacon, B. (2013). Instinctive leadership—Using intuitive intelligence to guide decision. Retrieved from http://www.hrzone.com/topic/intuitive-intelligence-leader ship/138932
- Bargh. J. A., & Chartrand. T. J. (1999). The unbearable automaticity of being. American Psychologist, 54, 462-479.
- Bernard, C. I. (1938). *The function of executive*. Cambridge. M.A: Harvard University Press.
- Brenner, O. C., & Bromer, J. A. (1981). Sex stereotypes and leader's behavior as measured by agreement scale for leadership behavior. *Psychological Reports*, 960-962.
- Burke, I. A., & Miller, K. (1999). Taking the mystery out of intuitive decision making. *Academy of Management Executive*, 13(4), 91-99.
- Catford, L. (1987). Creative problem solving in business (Unpublished Doctoral Dissertation). Stanford University. UMI.
- Clare, D. K. (1999). Workplace devaluation: Learning from experience. Digital library and archives (9etd, 042699-162003).
- Claxton, G. (1998). Knowing without knowing why. *Psychologist*, 11(5), 217-220.
- Coget, J. F., & Keller, E. (2010). The Critical Decision Vortex: Lessons from the Emergency Room. *Journal of Management Inquiry*, 19(1), 56-57.
- Cohen, I. J. (1987). Can human relationship be experimentally demonstrated? Behavioral and Brain Sciences, 4, 317-370.
- Cyert, R. M., & March, J. G. (1963). *A behavioral theory of the firm.* Englewood Cliffs, NJ: Prentice Hall.
- Dane, E., & Pratt, M. G. (2007. Exploring intuition and its role in management. *Academy of Management Review*, 32(1), 33-54. Retrieved from www.management.ulac.ir

- De Bruim, W. B., Parker, A. M., & Fischhoff, B. (2007). Individual differences in adult decision making competence. *Journal of Personality* and Social Psychology, 92(5), 938-956. doi: 10.1037.0022-3514.92.5938.
- Dreyfus, H. I., & Dreyfus, S. F. (1986). *Mind over machine: The power of human intuition and expertise in the era of the computer*. New York: Free Press.
- Drucker, P. F. (1954). *The practice of management*. New York: Harper & Brothers.
- Eisenhardt, K. (1989). Making fast strategic decision in high velocity environments. *Academy of Management Journal*, 32, 543-576.
- Epstein, S. (1990). Cognitive experiential self theory. In Pervin (Eds). *Handbook of Personality: Theory and Research*, 165-192. New York: Guilford Press.
- Epsein, S. (1994). Integration of the cognitive and psychodynamics unconscious. *American Psychologist*, 49,709-724.
- Epstein, S. (2002). Cognitive-experiential self- theory of personality. In T. Millon & M. J. Leaner (Eds.), *Comprehensive handbook of psychology*. *Vol.5. Personality and social psychology* (pp.159-184). Hoboken, NJ: Wiley.
- Epstein, S., Pacini, R., Denes-Raj, V., & Hesier, H. (1996). Individual differences in intuitive-experiential and analytical thinking styles. *Journal of Personality and Social Psychology*, 71, 39-405.
- Epstein, S., & Pacini, R. (1999). Some basic Issues regarding dual process theories from the perspective of cognitive experiential self theory. In S Chaiken & Y. Trope (Eds.), *Dual process theories in social psychology* (pp.462-482). New York. Guilford Press.
- Ericsson, K., & Charness, N. (1994). Expert performance: Its structures and acquisition. *American Psychologist*, 49, 725-747.
- Ericsson, K. A., Krampe, R, T., & Teach-Romer, C. (1993). The role of deliberate practice in the acquisition of expert performance. *Psychological Review, 100*, 363-406.
- Finucane, M. I., Mertz, C. K., Slovic, P., & Schmidt, E. S. (2005). Task complexity and older adults' decision making competence. *Psychology and Aging*, 20(1), 71-84. DOI:10.1037/0882-7974.20.1.71.
- Fiske, S.T., & Taylor, S. E. (1991). *Social cognition* (2nd ed.). New York. Mc Graw-Hill.
- Gigerenzer, G. (2008). Why heuristic work? Perspective on Psychological Sciences, 3(1), 20-29. In A. K. Shah and D. M. Oppenheimer. Heuristic made easy: An effort reduction framework. Psychological Bulletin, 134(2), 207-222.
- Goodwin. P., & Wright, G. (1998). Decision analysis for management judgment. Chichester, England. John Wiley & Sons.

- Goodwin, P., & Wright, G. (2001). Enhancing strategy evaluation in scenario planning, A role for decision analysis. *Journal of Management Studies*, 38, 1-16. In Mcshane, S. L., & Von Glinow, M. A. *Organizational Behavior* 3rd ed. McGraw Hill. Irwin Boston.
- Hensman, A., & Sadler-Smith, E. (2011). *Intuitive decision making*. Retrieved from http://ideas.repec.org/cgi-bin/htsearch?q=Intuitive+decision+ making
- Harrison, E. F. (1999). *The managerial decision making process* (5th ed.). Boston Houghste: Mufflin.
- Harung, H. S. (1993). More effective decisions through synergy of objective and subjective approaches. *Management Decisions*, 31(7), 38-45.
- Hayashi, A. M. (2001). When to trust your gut? *Harvard Business Review*, 79(2) 59-65.
- Hoch. S. J., Kunreuther, H. C., & Gunther, R. E. (2001). Wharton making decisions. New York. John Wiley & Sons. Retrieved from http//ejbo.jyu. fi/pdf/ejbo_vol12_no2_pages_12-17.pdf
- Hofstede, G. (2001). Culture's consequences (2nd ed.). Thousand Oaks.
- Hogarth. R. M. (2001). Educating intuition. Chicago. University of Chicago Press.
- Isen, A. M. (2000). Positive affect and decision making. In M. Lears and J. M. Haviland-James 9th Eds. Handbook of Emotions, pp 261-277. Newport: Guilford.
- Isenberg, D. (1984). How senior managers think? Harvard Business Review, Dec/Jan, 81-90.
- Judge, W. Q., & Miller, A. (1991). Antecedents and outcomes of decision speed in different environmental contexts. Academy of Management Journal, 34(2), 449-463.
- Julisson, E. A., Karlson, N., & Garling, T. (2005). Weighing the past and the future in decision making, *European Journal of Cognitive Psychology*, 17(4), 561-575, DOI: 10, 1080/09541440440000159.
- Jung, C. G. (1933). Psychological Types, (First published in 1921). New York, Harcourt Brace.
- Kahnmann, D. (2003). Maps of bounded rationality. Psychology for behavioral economics. The American Economic Review, 93(5), 1449-1475: In Zhang, C. K., Hsee and Zxiao. The majority rule in individual decision making. Organizational Behavior and Human Decision Process 99 (2006) pp 102-111.
- Khatri, N., & Ng. H. A. (2000). The role of intuition in strategic decision making. *Human Relations*, 53, 57-86. Retrieved from www.fagbokf orlaget.no/S

- Klein, G. (1998). Sources of power: How people make decisions. Cambridge. M. A: MIT Press. Retrieved from www.globalmj.ed/2010
- Klienmuntz, B. (1990). Why we still use our head instead of formulas: toward an integrative approach. *Psychological Bulletin*, 107(3), 296-310.
- Kovacic, V., Balc, V., & Ballelino, U. (2013). Intuitive decision making. Changing habits through new business approaches, models and solutions. Retrieved from http://www.incogibanje.si/upload/irdokonferenca2013.pd
- Kruger, J., & Dunning, D. (1999). Unskilled and Unaware of it: How difficulties in recognizing one's own incompetence lead to inflated self assessments. *Journal of Personality and Social Psychology*, 77, 1121-1134.
- Lee, D. P. (1955). The republic-Plato. West Drayton, Penguins Books.
- Lieberman, M. D. (2000). Intuition: A social cognitive neuroscience approach. Psychological Bulletin, 126, 109-137.
- Majumdar, S. (2012). *Growth strategy in small entrepreneurial business organisations: A conceptual model.* Retrieved from http://www.ediindia.org/Creed/data%255CSatyajit%2520Majumdar.htm
- McGregor, D., Litchenstein, S., & Slovic, P. (1998). Structuring knowledge retrieval. An analysis of decomposed qualitative judgements. *Organizational Behavior and Human Decision Processes*, 42, 303-323.
- McMackin, J., & Slovic, P. (2000). When does explicit justification impair decision making?. *Applied Cognitive Psychology*, 14, 527-541.
- Milkman. K., Chugh. D., & Bazerman, M. (2008). *How can decision making be improved*? Retrieved from www.opimweb.wharton.upenn.edu
- Mintzberg, H. (1994). *The rise and fall of strategic planning*. The Free Press: New York.
- Naoyuki, Y. (2011). Japanese banks' decision making process in SME lending: An analysis of the SME database and the utilization of investment http://ideas.repec.org/
- Oliveira, A. (2007). A discussion of rational and psychological decision making theories and models: The search for cultural and ethical decision making model. *Electronic Journal of Business Ethics and Organizational Studies*, 12(2), 12-17.
- Oluwabusuyi, I. (2011). Intuitive managerial decision making in Malaysia and the United States. *Business Intelligence Journal*, 4(2), 312-319.
- Osbeck. I. M. (2001). Direct apprehension of social construction: Revisiting the concept of intuition. *Journal of Theoretical and Philosophical Psychology*, 21,118-131.
- Pachur, T., & Hertwig, R. (2006). On the psychology of the recognition heuristic. Retrieval primacy, as a key determinant of its use. *Journal of Experimental Psychology, Learning, Memory and Cognition*, 32(5), 983-1002. doi: 101037/0278-7393,32.5,983.

- Paprika, Z. Z. (2010). Rationality and intuition in California and Hungary. Global Management Journal ISSN 2080-2951.Retrieved from www.globalmj.ed
- Parikh, J. (1994). *Intuition: The new frontier of management*. Oxford, UK: Blackwell Business.
- Park, J., & Banaji, M. R. (2000). Mood and heuristics: The Influence of happy and sad states on sensitivity and bias in stereotyping. *Journal of Personality and Social Psychology*, 78(6), 1005-1023.
- Peters, T., & Waterman, R. (1982). In search of excellence. Harper & Row.
- Plato, *The republic*, trans, D. Lee (Harmondsworth, England; Penguin, 1955), Part VII, section 7. In *Organizational behavior* by McShane, L. Steven & Von Gliew. 2005. McGraw Hill . 3rd edition ISBN 0-07-111163-8.
- Pondy, L. R. (1983). The union of rationality and intuition in management action. Introduction: Common themes in executive thought and action. In Srivastava & Associates (Eds.), The executive mind. (p.181). Jossey-Bass.
- Prietula, M. J., & Simon, H. A. (1989). The expert in your midst. *Harvard Business Review*, 67(1), 120-124.
- Ray, M., & Myers, R. (1990). Practical intuition. In W. H. Agor (Eds.), Intuition in organization (pp.247-262). Sage: Newbury Park, California.
- Redelmeier, D. A. (2005). The cognitive psychology of missed diagnosis. *Annals of Internal Medicine*, 142(2), 115-120.
- Reed. A. E., Mikels, J. A., & Simon, K. I. (2008). Older adults prefer less choice than young adults. *Psychology and Aging*, 23(3), 671-675. doi: 10.1037/90012772
- Robbins, S. P., Judge, T. A., & Seema, S. (2012). *Organizational behavior*. Dorling Kindersley, India. Pearson Education in South Asia.
- Rorty, R. (1967) *Intuition*. In P. Edwards (Eds.), *Encyclopedia of philosophy* (pp.204-212). New York. Macmillan.
- Roy, M., & Myers, R. (1990). Practical intuition. In W. H. Agor (Eds.). Intuition in organizations (pp.247-262). Sage: Newbury Park, California.
- Seebo, T, C. II. (1993). The value of experience and intuition. *Financial Management*, 22(1), 1-27. Retrieved from www.3ntu.edu.sg/sabre/working_papers/01-97.pdf
- Shah, & Oppenheim, D. M. (2008). Heuristics made easy: An effort reduction Framework. *Psychological Bulletin*, 134(2), 207-222. Doi: -1,1037/0033-2909,134,207-222.
- Shapiro. S., & Spence, M. T. (1997). Managerial intuition: A conceptual and operational framework. *Business Horizons*, 40(1), 63-68.
- Sharmer, C. O. (2009). Theory U: Leading from future. Berrett Koehler Publishers, San Francisco. USA. http://www.incogibanje.si/upload/irdokonferenca2013.pd

- Shirley, D. A., & Langan-Fax, J. (1996). Intuition: A review of the literature. *Psychological Reports*, 79, 563-584.
- Simon, H. A. (1986). Rationality in psychology and economics. *Journal of Business, Oct*. 209-224.
- Simon, H. A. (1987, February). Making management decisions: The role of intuition and emotion. *Academy of Management Executive*, 57-64.
- Simon, H. A. (1996). *The science of the artificial* (3rd ed.). Cambridge. M. A: MIT Press
- Simon, H. A. (1997). Administrative behavior (4th ed.) New York: The Free Press, 1997 M.Augier, Simon says: Bounded rationality matters, *Journal* of Management Inquiry, Sept 2001. 268-275.
- Simon, H. A., & Chase, W. G. (1973). Skill in chess. American Scientist, 61, 394-403.
- Sibony, O. (2013). *Making great decisions. McKinsey Quarterly. Retrieved from* http://www.mckinsey.com/insights/strategy/making_great_decision
- Solso, R. L. (2005). *Cognitive psychology* (6th ed.). Singapore: Pearson Education.
- Stanvoich, K. E., & West, R. F. (2000). Individual differences in reasoning: implications for rationality debate. *Behavioral and Brain Sciences*, 23, 645-665.
- Traversky, A., & Kahnman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science* 185, 1124-1131. Retrieved from http://links.jstor.org
- Weiss, H. M., & Cropanzano, R. (1996). Affective events theory. A theoretical discussion of the structure, causes and consequences of affective experiences at work. Research in Organizational Behavior, 18, 1-74.
- Wild, K. W. (1938). Intuition. Cambridge: Cambridge University Press.

Received March 05, 2013 Revision received April 07, 2014