

Moderational Effect of Age on Time Pressure and Human Judgment-Decision Making Relationship

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ABSTRACT

Decision making is foreseeable in daily life, and ethical decision making is especially important to the harmony of the every society. There is no doubt in this that in stress or under pressure decisions are some time going to wrong direction rather than solving a problem another problem is created. In working environment where time pressure exists, it is difficult to take decision and make judgment about others. The study aims to identify Age play moderating role between human judgment, time pressure and decision making. Private and public sector were selected for this research and sample was considered 140 employees from different organizations out of them 128 were considered for analysis. For data analysis SPSS 17 used, which is supported by a technique of Multistage Sampling, Questionnaire heaving several questions regarding Human Judgment, Time pressure, Decision making and age was used as data collection. Result exposed so as to, age use as moderator between human judgment and decision making relationship and not play use as moderator between time pressure and decision making. This research is a valuable adding up in follow a line of investigation that will assist authorities of private as well as public association to enlarge the level of decision making and human judgment.

Key words: Human Judgment, Time Pressure, Decision making and Age.

INTRODUCTION

Decision making is foreseeable in daily life, and ethical decision making is especially important to the harmony of the every society. To take a decision is never easy in life even on daily bases, especially when it

effects on large scale such as ours and on society. Some researchers such as, Orasanu and Connolly (1993) explain 'The Responsibility Related Procedure' to take any sort of matters in our hands to deal with any matter. Narayan and Corcoran-Perry (1997) explains that the decision making is basic key to resolve any issue as per required. But it cannot be accurate all the time as making mistakes is a part of human nature. Which causes many reasons such as lack of knowledge or have no experience to solve such matter or issue before? That's why some time when we attempt to move forward with such problems we lose because of the fear holds our decisions much stronger than we thought off.

Today the moderate study explains us the concepts behind human ideology and thought's in different situations. Such as a normal human take a decision which will be totally different from a frightened person at that time. Even male and females decisions are quite opposite to each other's in same situations.

Human age is a common factor in taking decisions starting with the most ethical decisions being made by the older persons and changes the concept of the ethics of other person decision (Ruegger & King, 1992). Some of the presented studies looking at decision making in older adults are questionable: some state that decision making abilities decline with age, while others disagree with this statement (Deakin, Aitken, Robbins,

& Sahakian, 2004). Nevertheless, 'The Self Absorbed Perusal', on part of a researcher has repeatedly extracted that there had been no or zero effect of our age related impact. It is observed that the impact of time pressure is always great and tremendous on the gross out put efficiency of work.

Statement of Problem

Researcher extracted, there are many factors, which effects decision making like human judgment and time pressure are out of these factors. Considering the other factors like age gender etc to finalize moderational influence of age on "Time Pressure And Human Judgment On Decision Making " capability as well as their respective association within human judgment and time stress.

Research Objective

The Definite Purpose of such research recognizes the moderational effect of age and identifies association among "Time Pressure, Human Judgment and Decision Making".

Classification of Targets achieved will be as under:

- Scrutinize moderational-effect of age on Time Pressure and Human Judgement on Decision Making relationship.

Research Significance

The Researcher based psychological rehearsal foretells that is time pressure. It is a calculated fact that in our country, few researchers are at work in this area, and yet confused that how much time pressure effect will be absolutely and depressingly associated through human judgment and

decision making, so the research I have chosen that would be helpful for further research and traveling around of innovative thoughts in this ground.

Delimitation

The study will be delimited to Public and private education Sector in Islamabad.

REVIEW OF LITERATURE

The Researchers analysis and the extracted results of the hypothesis ,we may review our findings, regarding “Time Pressure, Human Judgment And Decision Making “, and their co-relational link with age, the author would ponder discussion on: The Variables calculated since 1961 to 2003, Edwards (1961) initially systemize the base, in which , reviewed 'decision based behavioral assumption through representing different psychological and economic theories of risk free alternative, risk-full alternatives in playoffs. Let’s have a brief discussion about human decisions and analyze the reasons behind it. Why such decisions taken by such person and what were the conditions. Before moving further we have to believe today wealth, age, experience, relations and body conditions all effects directly on any person’s decisions. Whereas, Becker and McClintock (1967) talk about the decision assumption, different attitudes in societal sciences. The Utilities ideology plays an intervening position toward connection decision Making (Theories) along through attitude of Collaborated Social Relational Sciences. Wright, P. (1974) discussed about the stressed decision maker, time pressures, While, Janis & Mann (1977) talked about decision making

in which he analyzed the interrelational link between the conflict, choice, and commitment. Thus, Beach and Mitchell (1978) discussed about the contingency Decision Strategies Selection Model. Einhorn and Hogarth (1981) attempted in resolving the judgment based impediment with functional arguments. These may involve the decisions made thus, in capacity of sense and intellect. Pitz & Sachs (1984) uttered the statement that the human based judgment is correlated to decision making having link with mind set 'human information processing'. Payne et al (1992) strained use of various decision approaches in the creation of predilection. Pennington and Hastie (1993) the study tells about the intellect based decision making and the cognitive approach of human mind working phenomenon. Stevenson (1993) talked regarding relationship of decision making with lasting cost. Diederich, A. (1997) accessible lively stochastic models for decision making with time restraint and in (2003) Decision making have a direct or deductive impact on crisis based mind power. Kocher, Strauß and Sutter (2006) offered the decision making of Individual or group, blended through basis with effect. It is personally selected. While we observe previous research, we come, conclude, mostly, the study, carried out, thus, was Qualitative to come across the relationship among, time pressure, human judgment and decision making.

Time Pressure

Stress/pressure can be defined as the situation where people being faced and observantly real and in cognitive approach as threatening (Atkinson,

Atkinson, Smith, Bem, & Nolen-Hoeksema, 1996) or as being the substantial, with mental boundaries creature, once compelled, or feel endangered (Baltas & Baltas, 1996). Altuntas (2003) defines, pressure like disturbance conveys the result of the physical, along with mental stress, having emotional burden of working boundaries. On the other hand time is a critical source in human judgment and decision making”. Exclusive of adequate time, many actions unspecified to emphasize excellent judgment and alternative cannot be implement. Many an observatory research analysis have treated time-pressure as a job attribute related in type to supplementary temperament as like the numerical substitute or number of characteristics (Payne et al., 1993) other hand Maule and Edland (1997) discuss it so as to belongings of time-pressure might as well differ with the means of acclimatized use through folks. In addition, time-pressured changes individuals and their knowledge handing out precedence with confident category or categories of knowledge being prejudiced more profoundly (Wright, 1974)

Human Judgment

Vocabulary declares so as to opinion is “the psychological or logical procedure of form estimation or assessment by discriminating with match up to,” as well as the capability for adjudicator is “the authority or skill to make your intelligence up on the starting point of confirmation.”

Gigerenzer (1991, 1996) critically examined, human capacity is attracted to good judgment, which, in accumulation about: values, and promulgation.

Gigerenzer (1996) and Cosmides & Tooby (1996) has extracted, which represents the common Rules for Survival. Einhorn & Hogarth (1981) tried to resolve judgmental unfairness with well-designed point of view that entail choice must be rational and intellectual. At the same time, the research psychologists read immense arrangements, regarding inaccuracy and unfairness.

Age

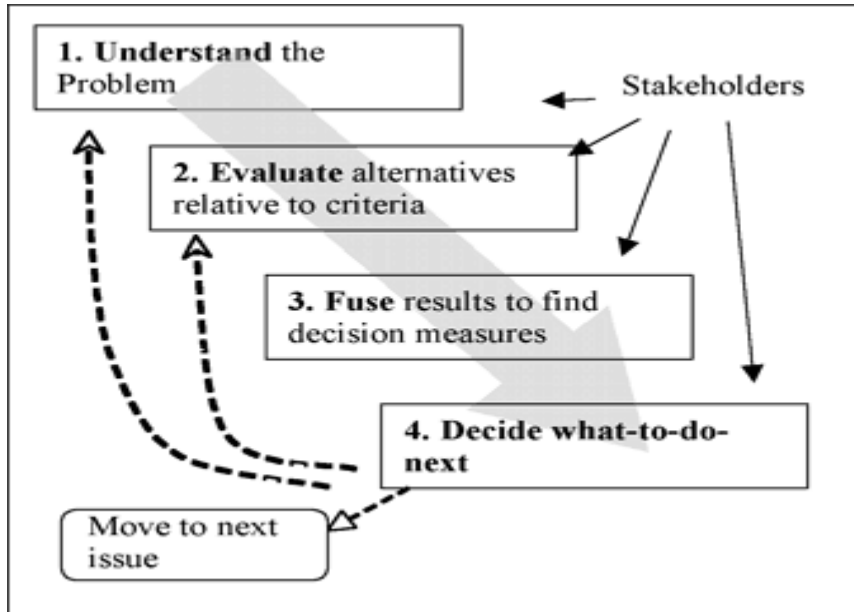
On the topic on age, manifold studies of the naturalists come within reach of the adulthood personnel once retired, to such an extent, that the youth work on. It is an appealing aspect, in analyzing the three categorical study samples, jointly. As per capacity of the male and female, the analysis's are not dead sure, the distinctive capabilities applied on part of the three, vide, the youth, the adults and the retired make sense in their physical endeavor. Many Researchers believes that in attendance are distinctions, (Gardner, Scherer, & Tester, 1989; Dror, Katona, & Mungur, 1998) and many of them are disagreeing with this (Chen & Sun, 2003; Moshman, 1993). The naturalists scrutinize the working with the working skills through reverence to their age.

Decision Making

Decision making is very important in all situations of life, either these situations are in crises or in happiness, but a good decision is always play a major role in all situations. The human being prepared with incomplete knowledge managing capacity tries to sense of balance

the aspiration to truthfully decide alternatives which eventually exploit his/her settlement and the similarly imperative want to decrease the cognitive damage of the given decision task (Ban Zor and Braznitz 1981). Whereas Kuzgun (1992) represented that the decision making aspects inclined toward overcome the recurrent difficulty, while we hold more than one decision, as existing.

Researchers have normally deliberately risky decision making in any situations allow the unlimited time to decision maker to implement that decision .Although all decisions are made under time constraint some have less time and some have more. This is same like that a driver, upon considering a yellow light, must decide whether to stop the vehicle or speed up through the intersection sooner than the red light come into view. Literature suggested that any human being is when involved in work based decision making, is engrossed physically through a chain process of skills as shown below:



The Decision, taken thus, is based on understanding about the problems faced, with its respective evaluation criteria.

Hypothesis

The hypothesis based test is observed as:

- **H₀:** Decision Making have significant effect with Time Pressure and Human Judgment
- **H₁:** Age play moderational role between human judgment and decision making.
- **H₂:** Age play moderational role between decision making and time pressure.
- **H₃:** Age does not play moderational role between decision making, human judgment and time pressure.

METHODOLOGY

Population

Public and private education Sector of Islamabad was chosen as studied population.

Sample and Response Rate

Selected four private and public organizations at Islamabad, Pakistan are:

Quaid-e-Azam University,

Mohammad Ali Jinnah University (MAJU),

Ripha international University and

Islamic International University.

The Sample based calculations were used while selecting 140 specific age limit resource persons, out of which, 128 respondents analyzed to eliminate biasness error.

Instrument

A Question tagged thus: Decision Making, Time Pressure and Human Judgment were adopted by Rizwan Saleem “Effect of Time Pressure and Human Judgment on Decision Making” in using it for data collection, meant for our Studies, through specific a questionnaire. The First Sample collects data information about

demographics like gender discrimination, age, sex, qualification, and work on part of the few at the management level, out of these we only consider 'age' for our analysis.

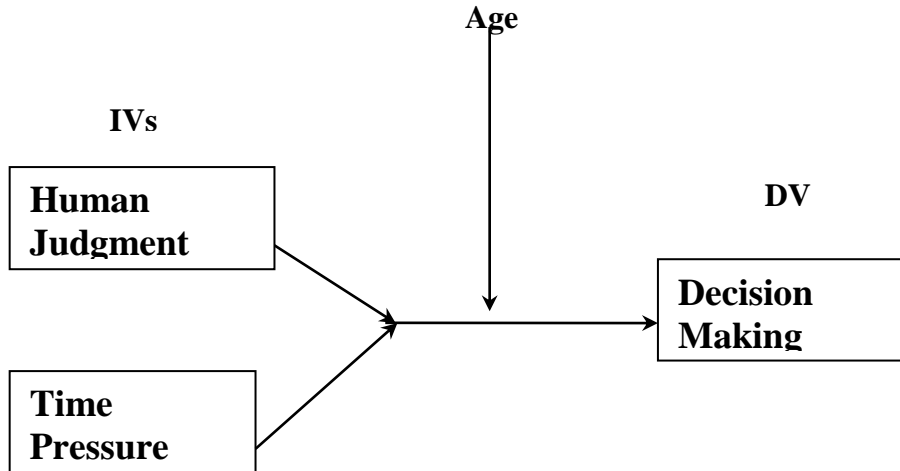
- **Part1.** Based on Decision Making having 10 queries for measuring DM.
- **Part2.** Based on Time Pressure having 10 queries for measuring TP.
- **Part3.** Based on Human Judgment having 7 queries for measuring HJ.

(These three categories were analysed and observed, in our second consideration)

Instrument Description

- Survey – to find the moderational effect of age on Time pressure human judgement - decision making relationship.
- Interrogate – All level Management, students
- Time Pressure & Human Judgement – the Independent Variables
- Decision Making – the Dependent Variable.
- Age – the Moderator
- Case – Private and Public Organizations.

Conceptual Model



Econometric Model

1. $DM = \beta_0 + \beta_1 HJ + \beta_2 TP + e$

2. $DM = \beta_0 + \beta_1 HJ + \beta_2 TP + \beta_3 AGE + \beta_4 HJ \times AGE + \beta_5 TP \times AGE + e$

Where

DM= Decision making

HJ= Human Judgment

TP= Time pressure

Age = Age

Analysis of Data

Statistical tools were used:

- Means and Standard Deviations was premeditated, as the aggregate named and implied give us the exact feelings intended for the required mediocre respond as:

- Regression Analysis find out the result of independent variables on the dependant one.

FINDINGS

Results of first equation

$$DM = \beta_0 + \beta_1 HJ + \beta_2 TP + e$$

Correlations

		DECISION MAKING	TIME PRESSURE	HUMAN JUDGMENT
Pearson Correlation	DECISION MAKING	1.000	.601	.557
	TIME PRESSURE	.601	1.000	.628
	HUMAN JUDGMENT	.557	.628	1.000
Sig. (1-tailed)	DECISION MAKING	.	.000	.000
	TIME PRESSURE	.000	.	.000
	HUMAN JUDGMENT	.000	.000	.
N	DECISION MAKING	128	128	128
	TIME PRESSURE	128	128	128
	HUMAN JUDGMENT	128	128	128

As can be seen in table Time Pressure, Human Judgment and Decision Making are significantly correlated.

Descriptive Statistics

128 individuals shortlisted for Decision Making, Time pressure and Human Judgment are 3.7883, 4.5498, and 4.3694 respectively.

Descriptive Statistics

	Mean	Std. Deviation	N
DECISION MAKING	3.7883	.55849	128
TIME PRESSURE	4.5498	.71863	128
HUMAN JUDGMENT	4.3694	.68653	128

Diversification in data shown by standard deviation, an indicator, along with a wide variety of the respondents:

ANOVA show, validity of model. Model extracts statistically significant (F= 44.205, p < .01) with residual of 23.202.

ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	16.410	2	8.205	44.204	.000 ^a
	Residual	23.202	125	.186		
	Total	39.612	127			

The regression data for the beta and the R square are given below

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.644 ^a	.414	.405	.43083	.414	44.204	2	125	.000	2.057

a. Predictors: (Constant), HUMAN JUDGMENT, TIME PRESSURE

b. Dependent Variable: DECISION MAKING

a. Predictors: (Constant), HUMAN JUDGMENT, TIME PRESSURE

b. Dependent Variable: DECISION MAKING

Correlation coefficient R =0.644 indicates the strength of association of the two independent variables (HJ & TP) collectively with the dependant variable (DM).The coefficient of determination R² =0.414 indicates that 41.4 percent variation in dependant variable

(DM) has been explained by the variations in independent variables (HJ & TP).

F static =44.204 is significant at $p < 0.01$ suggest that model is statistically significant (or the two independent variables significantly determine the dependant variable)

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.268	.272		4.669	.000
TIME PRESSURE	.322	.068	.414	4.703	.000
HUMAN JUDGMENT	.242	.072	.297	3.378	.001

a. Dependent Variable: DECISION MAKING

- Results shows both the coefficients of independent variables are individually statistically significant; coefficient carrying with independent variable TP and HJ are statistically significant at $p < 0.01$ which shows that one unit change in independent variable TP brings a 0.414 units change in dependant variable DM and same like that one unit change in independent variable HJ brings a 0.297 units change in dependant variable DM and according to result we accept our supposition Decision Making have significant effect with Time Pressure and Human Judgment

Results of second equation

$$DM = \beta_0 + \beta_1HJ + \beta_2TP + \beta_3AGE + \beta_4HJ \times AGE + \beta_5TP \times AGE + e$$

Correlations

		DECISION MAKING	TIME PRESSURE	HUMAN JUDGMENT	AGE	HJAGE	TPAGE
Pearson Correlation	DECISION MAKING	1.000	.601	.557	.151	.320	.347
	TIME PRESSURE	.601	1.000	.628	.188	.389	.549
	HUMAN JUDGMENT	.557	.628	1.000	.148	.529	.352
	AGE	.151	.188	.148	1.000	.907	.915
	HJAGE	.320	.389	.529	.907	1.000	.918
	TPAGE	.347	.549	.352	.915	.918	1.000
Sig. (1-tailed)	DECISION MAKING	.	.000	.000	.044	.000	.000
	TIME PRESSURE	.000	.	.000	.017	.000	.000
	HUMAN JUDGMENT	.000	.000	.	.048	.000	.000
	AGE	.044	.017	.048	.	.000	.000
	HJAGE	.000	.000	.000	.000	.	.000
	TPAGE	.000	.000	.000	.000	.000	.
N	DECISION MAKING	128	128	128	128	128	128
	TIME PRESSURE	128	128	128	128	128	128
	HUMAN JUDGMENT	128	128	128	128	128	128
	AGE	128	128	128	128	128	128
	HJAGE	128	128	128	128	128	128
	TPAGE	128	128	128	128	128	128

As can be seen in table Time Pressure, Human Judgment Age and Decision Making are significantly correlated.

Descriptive Statistics

	Mean	Std. Deviation	N
DECISION MAKING	3.7883	.55849	128
TIME PRESSURE	4.5498	.71863	128
HUMAN JUDGMENT	4.3694	.68653	128
AGE	1.8125	.54339	128
HJAGE	7.9743	2.72657	128
TPAGE	8.31937	2.869770	128

Dependant Variable in Decision Making were 128 in number, 3.7883 was the aggregate, is meant, for two independent variables Time pressure and Human Judgment are 4.5498 and 4.3694 respectively, and mean for moderator (Age) and interaction terms between moderator and independent variables are 1.81125,7.9743 and 8.319 respectively.

Standard Deviations are shown, which clearly indicates about 'diversity', a clear indicative that we possess a wide variety of opinions amongst the Respondents.

ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	17.755	5	3.551	19.820	.000 ^a
	Residual	21.858	122	.179		
	Total	39.612	127			

a. Predictors: (Constant), TPAGE, HUMAN JUDGMENT, TIME PRESSURE, AGE, HJAGE

b. Dependent Variable: DECISION MAKING

Validity of model shown by ANOVA. Model found statistically significant ($F= 19.820$, $p < .01$) with residual of 21.858.

Model Synopsis^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.669 ^a	.448	.426	.42327	.448	19.820	5	122	.000	1.985

a. Predictors: (Constant), TPAGE, HUMAN JUDGMENT, TIME PRESSURE, AGE, HJAGE

b. Dependent Variable: DECISION MAKING

The Correlation Coefficient $R = 0.669$ indicates about The Strength of Association Between The Two Independent Variables (HJ & TP) as a whole, with The Dependant Variable (DM). The Coefficient of Determination $R^2 = 0.448$ Indicates, About 45 Percent Variation in The Dependant Variable (DM) has been elaborated Through The Variations in The Independent Variables (HJ & TP).

F Static = 19.820 is significant at $p < 0.01$, Which Suggests, The Model is Statistically Significant (or The Two Independent Variables Significantly Determine The Dependant variable)

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.314	.817		.384	.036
TIME PRESSURE	.121	.243	.155	.498	.620
HUMAN JUDGMENT	.812	.248	.999	3.276	.001
AGE	1.038	.515	1.010	2.016	.046
HJAGE	.330	.134	1.613	2.469	.015
TPAGE	.091	.135	.467	.673	.502

a. Dependent Variable: DECISION MAKING

- Results shows that coefficient of independent variable (HJ) is individually statistically significant, the coefficient of independent variable (TP) is individually statistically insignificant and the coefficient of moderator variable (AGE) is individually statistically significant ; coefficient carrying with independent variable TP and HJ are statistically significant and insignificant at $p < 0.1$ respectively which shows that one unit change in independent variable TP brings a 0.155 units change in dependant variable DM and same like that one unit change in independent variable HJ brings a 0.999 units

change in dependant variable DM. Coefficient of moderator variable Age and their interaction terms with independent variables show the similar result like that coefficient of (HJAGE) is statistically significant and coefficient of TPAGE is statistically insignificant at $p < 0.1$, the result also discuss one unit change in moderator Age will bring 1.010 unit change in dependant variable. All above mentioned results shows that age plays moderational role with human judgment but age haven't any concern with time pressure .We accept our hypothesis Age play moderational role between human judgment and decision making.

RESULTS AND DISCUSSION

As earlier discussed in many research only age has not any strong effect on decision making but we never neglect this element that age didn't play any role in human judgment .As age increases human judgment would also be higher. Time pressure and human judgment may or may not cause or effect on Decision making without any other passive factor like age, sex, education etc. but It also depends on situation that in which situation you are going to take a decision. As per employees are concerned in this study most of them are satisfied with their working environment ant many of them are willing to work in time pressure and take better decision in stress because in education sector most of time they face many unforeseen situations which they handled according to their judgment which they attain with passage of time.

Recommendations

So That, we may perceive about The improvement of 'job Satisfaction and The Morale Level improvement of The Employees, The Education Sector Should Must immediately better The Surrounding Environment for Learning Tendencies, And The Infrastructural Framework, so as to Try Reduce or Eliminate The Specific Stress Caused by Time Dilations, at work.

- Adroit and Skilful workforce should be concentric on Their Job and Should Take improvised Decision in Time Pressure Proposition.
- Human Judgment is not always based on 'Age'. It Might be possible An Aged Person's Judgment may go Wrong, as does the age factor, So do Consider All Possible Factors while making 'A Predialected Judgment about a person and taking decision.
- Company should give preference to those employees who are senior in age and deserve it.

Limitations of Study

Although intentionally collection of data is in good faith but there are chances of some flaws in study. Researcher faces many hurdles which are part of research process. While collecting data many hurdles were faced by researchers, which are as follows.

1. **Lack of time and resources:** It was not feasible conduct study at large scale due to Lack of time and other resources.
2. **No of response rate:** Out of all respondents only 128 respondents have chosen, who meets the full requirements' of study which is very small number.

3. **Respondents Unwillingness:** Due to poor knowledge respondents' were unwilling to fill the questionnaire and felt its only time wasting exercise.
4. **Sector of research:** Study is delimited in specific sector that's why area of research is very small.

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