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# IMPACT OF KNOWLEDGE MANAGEMENT PROCESS ON CREATIVE BEHAVIOR WITH MEDIATING ROLE OF EMPLOYEE EMPOWERMENT AND MODERATION OF BOUNDED DECISION-MAKING STYLE

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## ABSTRACT

*This study aims to address the following research questions: what is the impact of knowledge management on Creative Behavior? What is the mediating role of Employee Empowerment? How Knowledge management process affect Creative Behavior? The data is gathered by using the stratified sampling technique that 400 web-based structured questionnaires used to collect data from different departments/program's peers. The sample of this research is calculated by using SPSS and Smart PLS software. This study discovers the positive impact of knowledge Management, Knowledge Creation, Knowledge Identification, Knowledge sharing, Employee empowerment, bounded decision-making style and Creative Behavior together with extant empirical work and develops testable propositions. The extant experiential and conceptual indication allows us to draw the decisions that knowledge management processes can enhance overall Creative Behavior.*

## KEYWORDS

*Knowledge Management, Knowledge Creation, Knowledge Identification and Knowledge Sharing, Employee Empowerment, Bounded decision-making style, Creative Behavior*

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**INTRODUCTION**

A concise history of information the executive's ideas is laid out, noticing that quite a bit of KM existed before the real term came into well-known use. The absence of agreement over what establishes a decent meaning of KM is tended to, and the idea examination method is depicted as a method for explaining the calculated disarray that continues over correctly what KM is. The multidisciplinary foundations of KM are specified, along with their commitments to the discipline. The two significant types of information, inferred and unequivocal, are thoroughly analyzed. The significance of KM today for people, for networks of training, and for associations are depicted, along with the arising KM jobs and duties expected to guarantee fruitful KM executions. The capacity to oversee information is turning out to be continuously more crucial in the current data economy. Abubakar et al., (2018) today Universities face the same pressures as other organizations to establish themselves in the market. Because the government and other stakeholders are more worried about how well higher education institutions are doing, professors and universities have been forced to adopt a management system similar to that of businesses, where students are treated like customers. The current working environment is flightier because we right now need to go to step by step to the extension in the amount of passionate data things. Isolating in excess of 200 messages, faxes, and voice message messages reliably should be done by cheerful time use practices and filtering rules, yet when in doubt, workers will overall showcase a "Pavlovian reflex" when they note the signs revealing the presence of new mail or the ringing of the phone that solicitations brief thought.

Data workers are logically being drawn nearer to "think and respond rapidly," with brief period to measure and separate moving toward data and information, also recuperate, access, and apply relevant experiential data. Devi Ramachandran et al., (2013), With the quickly changing financial climate, the job of colleges or advanced education establishments as information suppliers have been analyzed and tested by various partners. Undoubtedly Academic foundations, particularly advanced education organizations like colleges, are considered as "information focuses", where different exercises are completed for the age, protection, scattering and utilization of information. Instructors, understudies and scientists are a basic piece of scholastic establishments and every one of them are occupied with the above exercises. Dalkir, (2013), this is expected both to the sheer volume of undertakings to address and to the incredibly reduced turnaround time. The present assumption is that everybody is "on" all the time 3 as confirmed by the different messages communicating inconvenience when voice messages are not reacted to immediately or messages are not recognized. Information the board addresses one reaction to the test of attempting to deal with this perplexing, data over-burden workplace.

All things considered, KM is maybe best ordered as a study of intricacy. Probably the

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biggest supporter of the intricacy is that data over-burden addresses just a glimpse of something larger just that data that has been delivered unequivocal. KM additionally should manage the yet to be explained or implied information. (Stenholm, 2011) For certain, affiliations achieving further developed execution isn't simply dependent upon the productive association of indisputable assets and standard resources yet what's more on the convincing organization of data. An incredible piece of the overall spending by relationship on data the leader's exercises is driven by indispensable objectives that depend upon the amazing organization of the data resource. In light of everything, one of the principal clarification's universities put assets into data the leaders are to amass a data limit that empowers the reasonable organization and stream of information and data inside the school. Conclusively execution in its silly state is the affirmation of various leveled objectives. It is huge that affiliations have quantifiable objections as this has been viewed as fundamental for agents' responsibility and obligation toward the affiliation.

Budgetary benefits, advantage and definitive learning are a couple of various approaches to assess progressive execution. Plan of action advancement (BMI) is characterized as "planned, nontrivial changes to the critical components of a company's plan of 4 action or potentially the design connecting these components" BMI permits firms to make novel exercises that go past item and interaction development and was distinguished as a wellspring of maintainable upper hands (Tallman, Luo, and Buckley, 2018). Second earlier exploration recommends that information empowering influences and procedures ensure hierarchical accomplishment through authoritative execution; this investigation adds to rehearse, as exact dynamic exertion by chiefs can enhance the relationship chain. (Grimsdottir & Edvardsson, 2018).

To be serious organizations must procure, coordinate, disperse and hold information, and have the option to help the proceeded with making of new information. New information is fundamental to advancement; it helps associations in staying up with a unique domain (Baraffe et al., 2003) and improves the organizations' intensity (du Plessis, 2007). This work examines the recorded headways accomplished on the limited levelheadedness idea in the executive's research, considering the key impacting disclosures in related fields. The embraced strategy is recorded. This exploration approach assists with clarifying the development of a broad idea in a logical field and, especially, to distinguish the equal affecting progressions made in related areas. Different resources make up the data capacity of a school. Taken together, these resources conclude the data the board limit of a school, which thusly has been associated with various extents of legitimate execution (Gold et al., 2001).

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**LITERATURE REVIEW****Knowledge Management**

Yeh et al., 2006, the Knowledge management process is implemented that inspires the conception of knowledge in organizations in accumulation to its distribution and defines. KMEs come from the asset-based hypothesis (Barney et al., 2011), which recommends an knowledge-based view for system plan and animates the thought of elements that ought to be utilized to deal with the progression of information assets in an organization. (Meso & Smith, 2000) are additionally used by various information the executive's models so as to create a powerful framework that improves an association's centre skills. Utilizing ontologies with KMEs can accomplish a nonexclusive figure of the KMEs and the associations between them. It additionally encourages a comprehension of each ideas and their semantic connections. Also, it will help associations reacting to a quickly changing condition notwithstanding derivation thinking over the ontologies' various components. (Cabral et al., 2009). Gold, (2001) Management, Information Technology (IT), association structure, culture, business archive and information setting are the primary KMEs that express to the area. They are key infrastructural abilities that are essential for execution and authoritative achievement. The creators analyzed the impact of forgetting setting on hierarchical execution of local area sport clubs (CSCs) through information the executives. The directorate of CSCs in Iran were welcomed to take an interest in this examination.

**Knowledge Identification**

Yeh et al., (2006), Information the board empowering influences are facilitators that invigorate the formation of information in associations notwithstanding its sharing and security. KMEs originate from the asset-based hypothesis (Barney et al., 2011), which recommends an information-based view for technique definition and invigorates the thought of KMEs as components that ought to be utilized to deal with the progression of information assets in an association (Meso & Smith, 2000). Cabral et al., 2009, KMEs are likewise used by various information the executive's models to create a unique framework that improves an association's centre capabilities. Utilizing ontologies with KMEs can accomplish a conventional outline of the KMEs and the associations between them. It likewise encourages a comprehension of each KME ideas and their semantic connections. Mitchell et al., (2009), Information creation has been evaluated as far as a 3-overlap order, that is, procedure, volume, and final product. The procedure viewpoint assesses phases of creating imaginative information, for example, the use of metaphorical terms wherein to render outside information. As far as volume, the information age is estimated with a view to its prompt item which by and large includes impressive expansion to current information, for instance, through the introduction of novel ideas. Meyerson & Dewettinck, 2012, The advanced associations additionally began looking to change their administration

of HR by following the systems that attention on HR which showed up through the improvement of administrative belief system, in a way that goes with the progressions to pick up the steadfastness and connection of the people to accomplish the association's goals. What's more, the serious condition of the association sped up and normal in which associations require the development to continue and upgrade its serious position. The supervisors of present-day associations should quick to build up the capacities of representatives in critical thinking and cooperation in dynamic.

### **Knowledge Creation**

Raisch & Birkinshaw, 2008, Knowledge sharing: depends on the way toward moving the right information to individuals who need it in the fitting opportunity to tackle their job and it is estimated by data innovation frameworks to work with sharing interaction and the propelled workplace. Information sharing that happens upward frequently contains orders, criticism and status reports, in which data is amassed or disaggregated at some level for administrative dynamic or for spreading strategy. From a hierarchical ability to use both hands viewpoint, such hierarchical and base up information stream is seen as more steady of shady authoritative capacities as opposed to explorative capacities. In associations, information the board exercises don't happen separately. There are explicit authoritative elements that add to the information the board drive and work with information related exercises. A few examinations have distinguished and analyzed the hierarchical elements influencing information the board which are extensively introduced in this part.

The most widely recognized information the executives factors analyzed so far are initiative, senior administration support, authoritative human asset rehearses, culture, design, environment, and innovation. Rezaei et al., 2021, Foundation and improvement of outer and inward information the executives boards of trustees inside the association advance correspondence and systems administration and result in diminishing limits and cultivating the sharing and moving of information. Information the board techniques, frameworks, and practices ought to likewise be assessed to figure out which strategies, frameworks, and practices are compelling and which are not.

### **Knowledge Sharing**

Massingham et al., 2019, While this kind of information sharing is significant inside associations as an organizing system and for its functional requirements, even information sharing goes about as a critical instrument in fostering the scholarly capital vital for advancement and for building explorative abilities (Aoki, 1986;; Raisch and Birkinshaw, 2008; Sung and Choi, 2018; Wide'nWulff and Ginman, 2004). Felin and Hesterly, 2007, considering information based view, battled that information which comprises of unsaid and unequivocal is the chief hotspot for business firms to

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acquire supported upper hand. While associations can hold information for esteem creation, information trade or sharing improves development and in the end expanded execution (Gao, He, and Wang, 2009). The sharing, for instance, can be archives and reports, preparing programs, advancement plan which convenient react to client needs, and at last adds to firm execution (Wang and Wang, 2012). Ganguly et al. (2019) further underscored that KS advances upper hand dependent on cost decrease and further developed execution. Tseng and Lee (2014). Shown the impact of information the executive's abilities on hierarchical execution. People battle for objectivity; in any case, it is bound inside the limits of their insight. The objective decision is reachable as the confined arrangement of parts on which the choice is based glances at to a shut game-plan of factors, (Arslantürk et al., n.d.). This demonstrates that decisions can be made without considering the potential outcomes derived from data tendencies. A piece of the sociologies that undertakings to coordinate these tendencies, nearby the economy, is tasks research, in any case, the lead part is joined into these areas to try to make sense of and settle the restrictions of the unique in the affiliations.

### **Employee Empowerment**

About Elnaga, (2014) Employee Empowerment can be successful in diminishing the work force; it encourages the people to manage the circumstances that necessitate a high exertion since it furnishes them with significant assets, for example, independency, interest in dynamic and competency; it additionally prompts having a constructive outcome for the jobs of the representatives. Al-Jammal et al., (2015), Employee Empowerment can likewise be considered as an apparatus to overhaul the limit of various levelled change and laborers' help; it also opens the door for endeavouring the inventive limits of the delegates, gives them versatility, independency and addition the laborers' certainty. Meyerson & Dewettinck, (2012), Workers Empowerment is one of the ways that expansion the association's capacity in improving, creating and utilizing the abilities of the representatives, and it is considered as an apparatus to upgrade the representatives in planning their inventive thoughts.

EE can be characterized as giving the representatives the data and power and the necessary assets to accomplish the association's objectives. Al-Jammal et al., (2015), Representatives Empowerment can likewise be considered as an apparatus to improve the capacity of hierarchical change and workers' investment; it additionally opens the entryway for attempting the imaginative capacities of the workers, gives them adaptability, independency and increment the representatives' sense of pride.

### **Bounded Decision-Making**

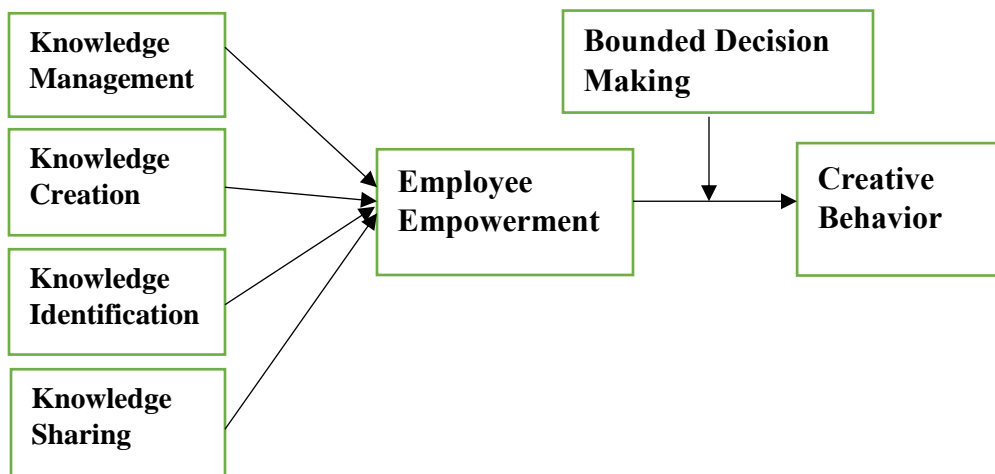
A monetary man as demonstrated by the speculation of the decision, has all out information, expecting that he knows every one of the courses of action, yet

furthermore his results. It is delicate to the available different alternatives. The significant reality about the monetary man is that he is sensible. This infers their tendencies are done, transitive and that there are perfect substitutes; and afterward once more, he makes his decisions to extend his utility. A comparative maker implies the direction in the decisions, referring to that individuals are neither consistent nor delicate. The speculation of restricted acumen understands the decision method according to a better point of view. In the powerful technique, even in tolerably essential issues, a limit can't be procured since it is hard to affirm every single under-the-sun other alternative. People contrast in both open possibilities and needs (influenced by normal segments).

**Creative Behavior**

Marianne Hock et al, 2021, In the present business climate with quickly developing correspondence and data advancements, information the board (KM) abilities are an important hotspot for development. Notwithstanding, little is thought about the specific KM abilities that lead to plan of action development (BMI) and regardless of whether their impact is reliant upon the association's direction towards hazard-taking. We analyze the effect inner and outside KM capacities have on BMI and how these impacts are directed by its danger-taking resistance. We observationally break down an example of 197 little and medium-sized ventures (SMEs) applying primary condition demonstrating (SEM) and fluffy set subjective relative investigation. The outcomes from the SEM show that especially outer KM capacities invigorate BMI. This relationship is fortified for firms with a high risk-taking resilience. Inward information is just as powerful for firms with a generally safe-taking resistance.

**Theoretical Framework**



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**RESEARCH OBJECTIVES**

1. To examine the connection between the Knowledge Management Process with Creative Behaviour.
2. To inspect Knowledge Management with the mediating relationship of Employee Empowerment with Creative Behaviour.
3. To find out the Knowledge Management with moderating relationship of Bounded Decision-making Style with Creative Behavior

**RESEARCH QUESTIONS**

1. What is the impact of knowledge management on Creative Behaviour, with the mediating role of Employee Empowerment and moderation of Bounded Decision-making Style?
2. How Knowledge Management Effect Creative Behaviour?

**RESEARCH HYPOTHESIS**

1. Knowledge Management positively influence Creative Behaviour.
2. Knowledge Creation Positively influence Creative Behaviour.
3. Knowledge Identification Positively influence Creative Behaviour.
4. Knowledge sharing positively influence Creative Behaviour.
5. Employee Empowerment significantly mediate the association between Knowledge Management and Creative Behaviour
6. Employee Empowerment negatively mediate the connection between knowledge identification and Creative Behaviour.
7. Employee Empowerment positively mediate the affiliation between knowledge creation and Creative Behaviour.
8. Employee Empowerment significantly mediate the relationship between knowledge sharing and Creative Behaviour.
9. Bounded Decision-making style positively moderate between Employee Empowerment and Creative Behavior.

**RESEARCH METHODOLOGY**

In this research, positivism philosophy has been used and quantitative research method is use. It's a cross-sectional investigation. Which utilizes observational information communicated statistically to express to the discernment or experience of the respondents. Accordingly, quantitative information is assembled, collected, encoded, and measurably handled to examine and gauge the association of factors through a deductive cycle. This interface of variables may prompt the probability of the rise of one marvel or result expressed in a hypothesis (Malik et al., 2020). In this study deductive approach is utilized as it for the most part starts with a speculation, while an inductive methodology will routinely utilize research solicitations to limit the level of the assessment. For insightful strategies the importance is normally on causality, while



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for inductive systems the truth of the matter is generally founded on exploring new ponders or taking a gander at actually researched considers as indicated by a substitute viewpoint (Malik et al., 2020).

### **Population**

According to (Krejcie & Morgan, 1970), the known target population of this research is faculty members of the five private Universities of Lahore (Pakistan), which are Superior University, University of Central Punjab, Minhaj University, Lahore University and University of South Asia.

### **Sample**

The sample size of a quantifiable example is the amount of discernments that contain it. The sample size is typically implied by  $n$  and it is reliably a positive number. It can change in different research environments. In any case, assuming everything else is equal, a large measured sample increases the accuracy of assessments of various population characteristics. (Mohamed Adam, 2020). According to Morgan Table (Krejcie & Morgan, 1970), its sample size is 500. Simple random sampling technique has been used, that is the purest form of probability sampling. In which each member of the population has an equal and known chance of being selected. In this study, simple random sampling technique is use because the population is known. Quantitative technique has been used to gather the information from the academic peers. Survey was conducted to gather the data. 500 close ended web-based questionnaires disseminated among various offices/programs companions to get the information.

### **Analysis**

PLS demonstrating utilizing the Smart PLS 3 version utilized as the factual apparatus to look at the estimation and underlying model as it doesn't need a presumption of ordinariness and study research is regularly not typically circulated (Chin et al., 2003). Since the data gathered using Statistical Software Packages for Social Sciences (SPSS). Accordingly, primary condition demonstrating will utilize. Two decisions exist to do primary condition demonstrating, either the utilization of covariance-based (CB-SEM) displaying or (PLS- SEM). As of late, researchers are progressively utilizing Smart PLS for the investigation of Green HRM practices. Highlighted the following compensations of using PLS-SEM:

- PLS-SEM can use a minor sample size.
- Models with developmentally indicated builds should be dissected with PLS-SEM.
- PLS-SEM is better than relapse investigation while evaluating mediation.

**DATA ANALYSIS****Table 1: Demographic Analysis**

Demographic Variables	Categories	Frequency	Percentage
Gender	Male	156	33.2
	Female	314	66.8
Age	20-25	239	50.9
	25-30	112	23.8
	30-35	32	6.8
	35-40	78	16.6
	Above	9	1.9
Qualification	Bachelor's	129	27.4
	Master's	163	34.7
	MPhil	144	30.6
	PhD	34	7.2
Experience	1 -5 Years	283	60.2
	5-10 Years	108	23.0
	10-15 Years	26	5.5
	15-20 Years	35	7.4
	Above	1	3.8

The table 1 signifies demographic statistics with respect to gender of respondents in terms of frequency distribution, percentage and cumulative percentage. Table 1 shows that out of 400 respondents, 33.2% (156) were male and 66.8% (314) were female. Female respondents' rate is more than male. Results indicates the distribution of respondents with respect to age. Survey accounted 50.9% (239) respondents who had their age up to 20 -25 years. Moreover 23.8% (112) respondents were between age group 25 to 30, 6.8% (32) were between age group 30 to 35, 16.6% (78) were between age group 35 to 40, and 1.9% (9) were above from age of 40, Results shows that majority of respondents are between age group of up to 20-30. Discoveries shows segment qualities of study members regarding their instructive level. It is apparent from 27.4% (129) of the respondents had the four-year certification, 34.7% (163) members hold the graduate degree 30.6% (144) members hold the MPhil degree while just 7.2% (34) of the respondents got their Ph.D. degree. Examination further suggests that greater part of members hold Graduate degree. The fining about experience that 60.2% (283) of the respondents have experience between 1 to 5 years, 23% (108) participants hold 5 to 10 years, 5.5. % (26) participants hold 10-15 years, 7.4%, (35) participants hold 15 to 20 years, whereas only 3.80% (18) of the respondents had above 20 years' experience. Analysis further implies that majority of participants hold 1-5 years' experience.

**Table 2: Descriptive Analysis**

<b>Variables</b>	<b>Mean</b>	<b>S. D</b>	<b>Skewness</b>	<b>Kurtosis</b>
Knowledge Management	4.0286	.62596	-1.417	0.377
Knowledge Creation	3.8255	.71903	-.726	2.602
Knowledge Sharing	4.0759	.66571	.044	-1.042
Knowledge Identification	4.0912	.65210	.019	.310
Employee Empowerment	4.0814	.69640	-.492	-.410
Bounded Decision-Making Style	3.9035	.64511	.018	-.450
Creative Behavior	4.0081	.68217	-.494	.101

Table 2 presents the engaging measurements of the review factors. It displays the mean values and standard deviations of all of the variables under study, along with an acceptable range of kurtosis and skewness. Mean qualities shows the essential issue of the information. The central values are 4.02, 3.82, 4.07, 7.09, 4.08, 3.90, 4.00, 4.08 respectively. The table also shows skewness and kurtosis values which are in acceptable range. A normality test is used to determine whether sample data has been drawn from a normally distributed population. To fulfil the hypothesis of normality Skewness and Kurtosis of the data is checked. The acceptable value for Kurtosis is between +2 to -2 and for skewness is +1 to -1. The histogram which is in bell shape shows that there is normality in the data (Joseph Hair, 2009).

All variables were normally distributed because the values for skewness -1 to +1 and kurtosis between -2 to +2 are acceptable to prove the normal distribution. And their graphs are also in bell shape.

**Reliability**

Alpha Reliability Coefficients of All Scales (N= 470)

<b>Variables</b>	<b>No. of Items</b>	<b>Alpha Coefficient</b>
Knowledge Management	11	0.913
Knowledge Creation	8	0.908
Knowledge Identification	3	0.754
Knowledge Sharing	3	0.777
Employee Empowerment	4	0.857
Bounded Decision-Making Style	3	0.466
Creative Behavior	9	0.996

Table 03 shows reliability indicates consistency of the scale between items. The dependability of instruments is estimated by working out the alpha coefficients and between thing relationships of under concentrate on factors. Demonstrates the unwavering quality investigation by utilizing Cronbach's alpha coefficients.

Cronbach's alpha ought to come out between 0.6 and 0.8. Then the review will be solid and adequate. It is most regularly involved when you have different Likert inquiries in an overview/survey that structure a scale and you wish to decide whether the scale is dependable. The data are more likely to be reliable if there are more answers from the same respondents. For instance, the data will exhibit greater reliability if the majority of respondents responded with either "Strongly Agree- Agree" or "Disagree, Strongly Disagree" to any of the sets provided. Assuming the response of the respondents is more dissipated all things considered there is each opportunity the information will be less solid (Taber, 2018).

The data of coefficient alpha of variable has reliability in their items because their inter items values are greater than 0.70. According to (Ursachi et al., 2015) if the value of reliability is 0.60, that value is also consider as at acceptable value level. Whereas the value 0.80 and greater is consider at very good level. Which means that all the variables inter items have consistency among themselves.

**Correlation Analysis**

**Table 4: Correlation Matrix**

Variables	1	2	3	4	5	6	7	8
1. Knowledge Management	1							
2. Knowledge Creation	.852**	1						
3. Knowledge Sharing	.417**	.524**	1					
4. Employee Empowerment	.327**	.465**	.595**	1				
5. Bounded Decision-making Style	.458**	.438**	.579**	.547**	1			
6. Knowledge Identification	.351**	.471**	.612**	.736**	.660**	1		
7. Creative Behavior	.439**	.494**	.680**	.783**	.742**	.827**	1	

Table 4 signifies the correlation between the variables of the study. The connection coefficient is a proportion of the strength and course of relationship that exists between two factors estimated on basically a span scale. Correlation matrix identifies the association between two variables. "r" is used to define the degree of correlation between two variables. The value of correlation should be between -1 to +2. It can be positive association, negative association and zero association (Yufang & Jingwen, 2021).

The result of this study has correlation of 1 which mean it is highly correlate and shows that there is significant and positive association between the knowledge management, knowledge Creation, knowledge Identification, knowledge sharing, Employee empowerment, bounded decision-making style, Creative Behavior.

**Table 5: Regression Analysis**

Variables	B	SD	$\beta$	t-value	Sig.	VIF
Constant	1.363	.186		7.318	.000	
Knowledge Management	-.210	.077	-.193	-2.740	.006	4.004
Knowledge Creation	.242	.071	.255	3.425	.001	4.479
Knowledge Sharing	.479	.044	.467	10.967	.000	1.462
Knowledge Identification	.160	.049	.182	3.237	.001	2.542

Dependent Variable: Creative Behavior

$R^2 = .423$

$F = 85.251$

Table 5 shows the Regression Analysis. Independent variables are knowledge management, knowledge Creation, knowledge sharing, knowledge Identification, and dependent variable is Creative Behavior. The results in this table reveal the beta coefficient, standard error, t-value, significance value, F value. Results show that Knowledge management has positively influenced the Creative Behavior and ( $\beta = -.193, p < .0.5$ ) thus, H1 is supported. P value for beta of Knowledge Management is .006 which is significant at 5%. So, it has been supported by results which described that there is a positive relationship between knowledge management and Creative Behavior Knowledge Creation has positively influenced the Creative Behavior ( $\beta = .255, p < .0.5$ ) thus, it is supported. P value for beta of Knowledge Creation is .001 which is significant at 5%. Knowledge Sharing has significantly and positively influenced the Creative Behavior ( $\beta = .467, p < .05$ ) thus, It is supported. P value for beta of knowledge sharing is .000 which is significant at 5%. It also tells that there is .500 change by Knowledge sharing in Creative Behavior. So, it has been supported by results which described that there is a positive relationship between KS and CB. KI has positively influenced the CB ( $\beta = 0.182, p < .0.5$ ) thus, It is supported. P value for beta of KI is .001 which is significant at 5%.

**Multiple Collinearity**

Collinearity is a connection or relationship between two indicator factors in a model multicollinearity is the place where in excess of two indicator factors are related. The value of collinearity is that the Variance Inflation Factor (VIF) value should be less than 5, there is no multicollinearity. In the event that the VIF is greater than 5 - 10,

there is multicollinearity (Johnston et al., 2018). In this model, Knowledge Management, Knowledge Creation, Knowledge Sharing and Knowledge Identification values are less than 5 that's means there is no multicollinearity, means that there is no issue in the data.

**Measurement Model Assessment**

The measurement model evaluation steps in PLS-SEM, contrast these means with confirmatory factor analysis (CFA), convergent validity was evaluated by utilizing loadings, average variance extract, and competitive reliability and afterward depict the means to apply the technique, including dependable guidelines to manage the researcher in understanding each phase of the investigation for both philosophical and developmental measurement models (Joe F. Hair et al., 2020).

**Table 6: Convergent Validity**

Constructs	Items	Loadings	CR	AVE
Knowledge Management	KM1	0.774	0.93	0.626
	KM2	0.774		
	KM3	0.754		
	KM4	0.797		
	KM5	0.791		
	KM6	0.8		
	KM7	0.757		
	KM8	0.877		
Knowledge Creation	KC1	0.781	0.927	0.614
	KC2	0.845		
	KC3	0.779		
	KC4	0.816		
	KC5	0.822		
	KC6	0.641		
	KC7	0.804		
	KC8	0.765		
Knowledge Sharing	KS1	0.859	0.878	0.706
	KS2	0.798		
	KS3	0.861		
Knowledge Identification	KI1	0.846	0.863	0.678
	KI2	0.787		
	KI3	0.835		
Employee	EE1	0.848	0.903	0.7

Empowerment		EE2	0.812		
		EE3	0.884		
		EE4	0.801		
Bounded Decision-Making Style		BDMS1	0.775	0.777	0.636
		BDMS2	0.819		
Creative Behavior		CB1	0.79	0.903	0.651
		CB2	0.808		
		CB3	0.856		
		CB4	0.715		
		CB5	0.858		

The table 6 show Outer Loading, Compositd Reliability (CR) and Average Variance Extracted (AVE) that were used to check the convergent validity of the constructs. The value of Outer Loading should be greater than 0.50. And the value of Computed Reliability (CR) should be greater than 0.70. And the value of Average Variance Extracted (AVE) should be greater than 0.50 (Joe Hair et al., 2016). The table result shows that there is a convergent validity in the data, because the values of Outer Loading is greater than 0.50, Compositd Reliability is greater than 0.70 and AVE is above than 0.50.

**Table 7: Discriminant Validity (HTMT)**

Variables	1	2	3	4	5	6	7	8
1. Bounded Decision-Making Style								
2. Employee Empowerment	0.888							
3. Knowledge Creation	1.08	0.851						
4. Knowledge Identification	0.626	0.521	0.52					
5. Knowledge Management	0.746	0.644	0.61	0.892				
6. Knowledge Sharing	0.62	0.445	0.519	0.953	0.900			
7. Creative Behavior	1.025	0.712	0.753	0.608	0.638	0.569		

Table 7 shows discriminant validity which is test by Heterotrial Monotrait Ratio (HTMT). (Henseler et al., 2015) suggest the value of HTMT should be less than 0.90. The result in the table shows that all variables HTML values are less than 0.90 which respectively conforming the discriminant reliability.

**Structural Model Assessment**

Structural modeling was performed to appraise hypotheses with regards to private universities subsequent to affirming that the model is reliable and significant by assessing the measurement model. Path coefficients, t-values, and standard errors are registered to verify that model and its connections are critical with gathered information. The values of path coefficients showed if hypotheses were defended or not (Joe F. Hair et al., 2020).

**Table 8: Path Analysis**

	<b>Relationships</b>	<b>Original Sample (β)</b>	<b>Std. Deviations</b>	<b>T Statistics</b>	<b>P Values</b>	<b>Decision</b>
H1	Knowledge Management -> Creative Behavior	0.868	0.018	49.479	0	Supported
H2	Knowledge Identification-> Creative Behavior	0.771	0.03	25.938	0	Supported
H3	Knowledge Creation -> Creative Behavior	0.488	0.076	6.4	0	Supported
H4	Knowledge Sharing-> Creative Behavior	0.017	0.078	0.218	0	Supported
H5	Knowledge Management-> Employee Empowerment->Creative Behavior	0.291	0.077	3.803	0	Supported
H6	Knowledge Identification -> Employee Empowerment->Creative Behavior	0.015	0.067	0.221	0.413	Not Supported



H7	Knowledge Creation-> Employee Empowerment- >Creative Behavior	0.441	0.066	6.69	0	Supported
H8	Knowledge Sharing -> Employee Empowerment- >Creative Behavior	0.225	0.056	4.007	0	Supported
H9	BDMS -> CB	0.403	0.047	8.584	0	Supported

In table 8 path analysis shows direct hypothesis and moderator hypothesis of the study. T value should be greater than 1.645 and P value should be less than 0.05. In this study there are independent variables Knowledge Management, Knowledge Creation, Knowledge Identification, Knowledge Sharing and mediator which is employee empowerment and moderator which is bounded decision-making Style and there is one depended variable Creative Behavior in the study. H1 shows the effect of knowledge Management towards Creative Behavior. H1 is upheld on the grounds that its P esteem is 0 and its T esteem is 49.479, P worth ought to be under 0.05 and T worth ought to be more noteworthy than 1.645. H2 shows the impacts of information recognizable proof on Innovative ways of behaving. H2 is supported because it has a P value of 0 and a T value of 25.938, and its P value and T value should be less than 0.05 and greater than 1.645, respectively. H3 shows the impacts of information Creation on the Imaginative Way of behaving. H3 is upheld on the grounds that its P esteem is 0 which is under 0.05 and its T esteem is 6.4 which is more noteworthy than 1.645. H4 shows the impacts of Information Sharing on Innovative Way of behaving. H4 isn't upheld on the grounds that its P esteem is 0.414 which is more noteworthy than 0.05 and its T esteem is 0.218 which is under 1.645. H5 shows the impacts of Information The executives and Representative Strengthening on Innovative behavior. H5 is upheld in light of the fact that its P vale is 0 and its T esteem is 3.802, P worth ought to be under 0.05 and T worth ought to be more noteworthy than 1.645. H6 shows the impacts of Information Distinguishing proof on Representative Strengthening and Innovative behavior. H6 is not supported because its P value is 0.413, greater than 0.05, and its T value is 0.221; the P value ought to be less than 0.05, and the T value ought to be greater than 1.645. Both of these values are above 0.05. H7 shows the impacts of Information creation on Worker Strengthening and inventive ways of behaving. H7's P value is 0 and its T value is 0.221, which is lower than 1.645, support the hypothesis. H8 demonstrates the effects of knowledge sharing on creative behavior and employee empowerment. H8 is supported because its T value of 4.007 is greater

than 1.645 and its P value of 0 is less than 0.05. H9 shows the impact of Limited Dynamic style on the Imaginative Way of behaving. H9 is supported because its T value of 8.584 is greater than 1.645 and its P value of 0 is less than 0.05.

Relationships	Original Sample (β)	S. D	T Statistics	P Value	LLCI	ULCI	Decision
H 1 KM -> KC -> EE	0.015	0.067	0.221	0.413	.2123	.3662	Not Supported
H 2 KM-> KI -> EE	0.225	0.056	4.007	0	.2844	.4151	Supported
H 3 KM-> KS -> EE	0.215	0.025	8.441	0	.2323	.3933	Supported
H 4 KM-> KC -> CB	0.282	0.045	6.252	0	.1414	.3306	Supported
H 5 KM-> KI -> CB	0.166	0.042	3.972	0	.2135	.3557	Supported
H 6 KM-> KC -> CB	0.4	0.061	6.578	0	.1454	.3652	Supported

**Table 9: Indirect Effect**

Table 9 shows the indirect effects which indicate to mediator of the model. The study used the indirect boots trapping effect to check the mediation. It shows that whether the mediator is supported or not supported (Preacher et al., 2008; Preacher & Hayes, 2004). In this study there is one mediator (Employee Empowerment). H1 shows the indirect effects of KM on KC towards Employee Empowerment. H1 is not supported because its P value is 0.413 which is greater than 0.05 and its T value is also less than 1.645 and Lower Limited (.2123) and Upper Limited (.3662). H2 shows the indirect effect of KM on KI on Employee Empowerment. H2 is supported because its P value is 0 which is less than 0.05 and its T value is greater than 1.645 and Lower Limited (.2844) and Upper Limited (.4151). H3 shows the indirect effects of KM on KS on EE. H3 is supported because its P value is 0 which is less than 0.05 and its T value is also greater than 1.645 and Lower Limited (.2323) and Upper Limited (.3933). H4

shows the indirect effects of KM on KC on CB. H4 is supported because its P value is 0 which is less than 0.05 and its T value is greater than 1.645 and Lower Limited (.1414) and Upper Limited (.3306). H5 shows the indirect effects of KM on KI on CB. H5 is supported because its P value is 0 which is less than 0.05 and its T value is greater than 1.645 and Lower Limited (.2135) and Upper Limited (.3557). H6 shows the indirect effects on KM on KS on CB. H5 is not supported because its P value is 0.202 which is greater than 0.05 and its T value is also less than 1.645 and Lower Limited (.2746) and Upper Limited (.3726). H6 shows the indirect effects of KM on KC on CB. H6 is supported because its P value is 0 which is significant and its T value is greater than 1.645. Lower Limited (.1454) and Upper Limited (.3652).

## DISCUSSION

In Pakistan, the goal of high school student is to achieve good grades in exams so that they can get admission in a well reputed college / university with scholarships or secure reserved seats. Unfortunately, there is lack of quality universities due to which there is tough competition among students. This compels students to work hard. Along with this frequent exam in schools and board exams makes students stay under continuous exam stress (Smyth, 1995). Some level of stress is natural and good for performance but if its intensity is too high and it's not for a short time then it can become a problem (Ali, 2022; Albadawy, Bashir, Bashir, Cumber & Mohammed, 2019; Joels, Oitzl, Roozendaal, Schwabe & Wolf, 2012; Subhalakshmi & Sujatha, 2016; Cooper, 2021)). Students may experience issues like stomach aches, disturb sleep patterns or lack of sleep, low self-esteem, feeling of sadness, lack interest in activities they previously enjoyed etc. (Simic & Manenica, 2012) these can lead to serious disorders like depression (Chen, Qiu, Ren & Zhai, 2021).

The present study was aimed to find relation between examination stress and level of depression among high school students. In Pakistan high school consist of grade 9<sup>th</sup> and 10<sup>th</sup> but in this research grade 9<sup>th</sup> till 12<sup>th</sup> are taken as high school just like American education system. The reason for selection of this age group was that grade 9<sup>th</sup> till 12<sup>th</sup> students have to face school a series of continuous formatives and board exams. This built a lot of pressure on them especially when they know that they have to score good grades. Previous researches have shown that stress and depression rate in children is very high in Pakistan (Ashraf, Hussain, Khan, Muzafar, Sajid & Tahir, 2015; Mamdou, Nasir & Rab, 2008).

In this study, the researcher designed seven hypotheses. For the analysis of data, inferential statistics like independent sample t-tests, and one-way ANOVA were used to find differences on basis of gender and other demographic variables respectively. Further, the test of linear regression was done to find the impact of exam stress on depression. Results of the first hypothesis which was designed to find differences in

the level of depression between female and male high school students showed no significant difference in variance between male and female student's levels of depression. This result is male and female students scored the same on the depression scale and showed the same level of depression. my findings were contrary to many previous studies in which females showed a higher ratio of depression as compared to male students (Ahmer, Baig, Ibbad & Shahid, 2022; Bakshi, Goel, Kumar, Sandal, Singh & Sharma, 2017; Deepti, Kaur & Lal, 2014; Eman, Dogar, Khalid & Haider, 2012; Brown, Bifulco, Harris & Bridge, 1986). Further, significant difference in variance between male and female students' levels of examination stress which means boys and girls showed the same ratio of examination stress. The result of ANOVA test showed no significant difference in level of depression scores among students reported that they have three, two and only once formative exams per term which shows that the frequency of exams did not had a sound effect on depression. However, the examination stress was found to be greater in students who were giving three formatives per term as compare to those who were giving one exam per term. This shows that frequency of exams is related to the cultivation of stress in students. these results are similar to many previous researches (Ashraf, Hussain, Khan, Muzafar, Sajid & Tahir, 2015; Mamdou, Nasir & Rab, 2008). Moreover, it was explored that there is no significant difference in level of depression mean scores among high school students based on their grade. Students from grade ninth, tenth, first year and second year had same level of depression. However, the mean scores of examination stress among grade first year and second year had a significant difference in mean scores. Students from second year had a significantly higher stress level scores than stress level scores of students from first year.

Further, linear regression was performed to find if examination stress has significantly predicted depression. Results showed a positive relation and the results confirm that examination stress significantly predicted depression which means when examination stress increases in student's depression also increases and vice versa. These results were similar to previous studies in which examination stress and depression were found to be positively related (Ali, 2022; Albadawy, etal. 2019; Aggrawal et al, 2017; Joels etal, 2012; Simic & Manenica, 2012; Subhalakshmi & Sujatha, 2016, Cooper, 2021). There are many reasons which can create stress in students and it can cause adverse effects in form of emotional-behavior disorder like depression. The present study was aimed to find relationship of examination stress and depression. Further, the difference between students' depression and examination stress level was also computed on bases of their gender, grade, age and number of formative exams they have per term. The study was significant as most of the studies conducted in Pakistan on this topic are related to medical students. There is no study related to this topic on high school level.

The results of the study showed that students had no significant difference in depression on based of their demographic variables which are very different to some previous studies. The reason might be because they were conducted on medical students however in this study a sample of high school students was chosen. However, a significant difference was found in mean scores of students from grade 12<sup>th</sup> and 11<sup>th</sup>. Also, students who had to give three formative exams were found to have more examination stress as compare to those who were having exam only once per term. Another important finding was that examination stress do predict depression in high school students. This research can help teachers, school administration, parents, policy makers, curriculum designers, students and other researchers to enhance their knowledge related to this topic and understand how much examination stress can effect students if it is constant and accompany other issues like parents' high expectations, overloaded curriculum, tough competition etc.

### RECOMMENDATIONS

Schools and parents should offer relaxation activities to our students and more extra curriculum activities should be provided by the school. curriculum designers should design curriculum in a way that it should not be too lengthy or overloaded for students. Teachers should encourage children to express their emotions and take failures as an experience. Parents should not place too much pressure on their kids and motivate them in such a way that they know that their parents love them regardless of whatever happens. Researchers should work more in this field as the ratio of depression cases in children is increasing on a rapid rate.

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