

The Impact of Passion for Learning on the Knowledge Management: Does the Self-Regulation Matter?

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Abstract

The core purpose of the study is to investigate the impact of passion for learning, and self-regulation on the knowledge management. Meanwhile, the study has also examined the mediating role of self-regulation in the relationship between passion for learning, and the knowledge management. A dualistic model of Passion was proposed by researchers, including obsessive Passion and harmonious Passion is used in current study for the examination of impact of passion for learning on the knowledge management. The data is collected with the aid of a questionnaire. the students, studying in the higher education institutes of Pakistan .The data is collected with the aid of a questionnaire. the students, studying in the higher education institutes of Pakistan . The response rate of the study is 47.3 percent which is significantly higher than the threshold level of 30 percent. The SEM-PLS, which is among the most robust techniques for the hypothesis testing involving the structural models.It suggests that learning is self-regulated among individuals with harmonious passion, which strengthens their abilities in KM. Alternatively; self-regulation is low among individuals with obsessive passion, which hinders effectiveness of KM. the current e-learning environment across the globe requires an individual to alter their learning resources with time. The global e-learning environment has become knowledge explosive. The study will be helpful for policymakers, partitioners, and researchers in understanding the issues related to passion for learning, knowledge management, and knowledge management.

Keywords: passion for learning, knowledge management, knowledge management, Pakistan

Background

Educational resources are obtained in the e-Learning process, along with the use of internet interfaces or computers for participation in online or offline activities of learning. E-learning is integrated from traditional classes as it may involve blended or pure e-learning.The quality of learning has been improved by technological innovations across the world, which has created a dynamic and rich learning environment for individuals with reference to their needs(Pattnayak, Pattnaik, &

Dash, 2017). The capabilities of acquiring knowledge, its storage, application, sharing and creation is referred as Knowledge management (KM) (Yeh & Chu, 2018; Yoo & Huang, 2016). In the process of effective learning, knowledge management has become highly crucial as the world is technologically dynamic. Different learning materials are used by people for the acquisition of knowledge, its accumulation, sharing, and utilization. It has been found by previous research studies that there is KM capabilities are positively linked with technological innovation, including

innovation of product and process (Inkinen, 2016). In order to improve the knowledge of the young generation, it is crucial to understand the variables or determinants of KM in society.

For learning, a key factor is Motivation. In past, Motivation was distinguished into internal and external Motivation by researchers. However, a similar and integrated concept has been proposed by some psychologists over recent some years (Miller, 2018). This concept is named Passion, which can be used to define individual's motivation, which is constituted of various psychological processes of internalization. It has been regarded as an inclination or desire for investing energy and time in a certain activity. Moreover, it has been suggested that different types of Passion could have resulted from different methods of internalization.

A dualistic model of Passion was proposed by researchers, including obsessive Passion and harmonious Passion (OP and HP, respectively). It becomes easier to understand the cognitive motivation processes in learning through this model under a specific context. It has been suggested by some scholars that Passion is a critical factor for development of Knowledge Management abilities (Allen & Renfrey, 2017; Ballesteros, Díaz, & Aguiar, 2019). The relation between OP and HP (two proposed types of Passion) with KM has been studied by some empirical studies in e-learning environments (Altarwneh, Daud, & Shamaileh, 2019; Salloum, Alhamad, & Emran, 2019).

However, less attention has been given to understand the process by which various types of Passion create an effect on KM in the context of e-learning. It has been suggested by Miller (2018) based on the dualistic model of Passion, which both OP and HP are affected by intrinsic and extrinsic factors in an e-learning environment. Therefore, the four stages of Passion in the process of e-learning, including internal and external OP, internal and external HP, have been clarified by this research.

Knowing that self-regulation could act as a mediating variable between the relation of KM and Passion, the aim of this research is to analyze the mediating influence of self-regulation on the association of KM and dualistic passion (OP and HP) in e-learning. The investigation has been done

through the adoption of structural equation modelling (SEM).

Literature review

The desire of an individual to go for a certain activity is regarded as Passion (Miller, 2018). An individual may feel Passion about an activity, which appear to be crucial for investing time and energy. It has been found that the level of engagement is improved among people towards the activities, which they are keen for. Although Passion is distinct from Motivation, but it is linked with self-efficacy, lifelong learning curiosity, and love for learning. There is a close association between Passion and Motivation (Tasci, 2019). This difference between the two variables has been clarified by Schiphof and Hettinga (2017).

A hypothetical construct, Motivation, is used to define the internal and external factors influencing the development of behaviour, its intensity, direction and persistence. Considering this perspective, individuals are regarded as passive organisms that are influenced by internal or external factors. Alternatively, an individual is regarded by theorists of Passion as an active organism, which makes them strive for interacting with society to live a purposeful life. It has been stated by Schiphof and Hettinga (2017) that a special association has been entailed with activity through Passion.

In contradiction to intrinsic Motivation, it is crucial that an activity must be purposeful for an individual and a part of self-recognition to be a passion. Considering this aspect, the love for playing tennis and curiosity may be the factor behind one's motivation to learn it. However, in actual, it is the Passion, which drives him to make tennis a part of one's life (Schiphof & Hettinga, 2017). Since Passion involves curiosity, commitment, enthusiasm, reflection and meaningfulness, it can become crucial for some specific activities to survive in lives, such as becoming a professional player of tennis (Schiphof & Hettinga, 2017).

Considering the relation between lifelong learning, curiosity, and passion, a spirit of curiosity is required for pursuing a specific interest as a career, along with disciplines and hard work. However, a crucial mediating factor in this process could be Passion. It has been revealed by empirical and

theoretical research studies that two important aspects of Passion are the intensity of engagement and affect (Miller, 2018; Yeh & Chu, 2018). Passionate individuals are often engaged in specific activities for an extended time period. Therefore, the actions taken in the learning process and time invested are influenced by Passion. Moreover, it strengthens self-efficacy.

The Passion in learning can be strengthened by a higher self-efficacy level in long term. For adaptation and self-development of humans, self-efficacy is very crucial. Self-efficacy is referred as the confidence in one's abilities to implement specific actions for desired outcomes (Fellnhöfer, 2017). Efficacy expectations and outcome expectations are included in self-efficacy (Fellnhöfer, 2017). The actions taken during the process of learning are influenced by these two components. Individuals are more passionate to work for specific goals when they have a high level of outcome expectation. For the achievement of goals, Passion is not self-sufficient. It is crucial to implement effective strategies for the achievement of goals.

It was identified by Schiphof and Hettinga (2017) that the way in which one's interest for a specific activity can have deleterious or adaptive effects on one's life cannot be explained currently by any motivational theory. The dualistic model of Passion was introduced by Miller (2018) to deal with inadequate Motivation. The way in which an activity is internalized in one's personality is used to identify OP and HP in this model (Miller, 2018). An independent internalization of the activity leads to the origin of HP (Fin & Ishak, 2018). In this case, activity is freely accepted by individuals without any pressure. The motivational force is developed through internalization through self-willingness. Alternatively, a controlled internalization results in OP, where individuals feel pressure to get involved in an activity (Fin & Ishak, 2018).

There is a positive relation between HP and flow during engagement in the activity. Therefore, it is decided by individuals whether or when to engage or not in an activity. Further, individuals with HP can be involved in the task to their maximum resulting in positive outcomes. The lack of

fulfillment of needs by an individual results in interpersonal pressure, which is linked with OP. This could result in an ego-invested self.

The self-worth of an individual is protected by the ego-invested construction. The involvement in the activity becomes an alternative for self-work. Resultantly, the pressure is felt by individuals to participate in an activity rather than self-motivation (VanHorn, 2019). Negative outcomes can emerge from OP among individuals because it may make them feel being controlled by their activities. Innovative types of Passion were proposed by Miller (2018) in the dualistic model of Passion. However, the indices of OP and HP were not clearly defined. It was found by previous studies that an individual's Passion for learning is improved through intra-personal or internal factors, including interest, curiosity, and the internal need to improve one's self (Mayweg, Enders, & Zimmermann, 2020). Further, the studies have found that skills, which are helpful for success, are learnt by individuals.

Moreover, the Motivation and satisfaction of learners for skill transfer add to their e-learning passion. Individuals consider themselves self-indulging and productive when they are accomplishing something (Li & Tsai, 2020). Similarly, the enthusiasm of learners is derived from intrinsic motivation to acquire knowledge. There is a stronger desire among individuals (who feel encouraged and supportive in society) to acquire knowledge (Yeh & Chu, 2018). Alternatively, the passion of students with reference to e-learning can be influenced by some interpersonal and external variables.

An individual's passion for learning is improved through media interactions (Vale & Fernandes, 2018). Studies have found that there is a high relation between the flow in corporate e-learning, reflecting the relations between instructors and e-learners and teaching presence (Alqurashi, 2016). It has been revealed by a qualitative study that the creation of new ideas and knowledge is improved through a high-quality interactive and collaborative web environment. In a similar way, So, Chen, and Wan (2019) found that the attention and curiosity of learners are provoked through external factors, which improves their experience of flow during the e-learning process.

Hypothesis Development

Secondary research was conducted by Bootz, Durance, and Monti (2019), in which they evaluated 350 published articles in the past ten years. The researchers suggested that a crucial role is played in information technology by KM. a systematic process of interaction between a learner, actively construct knowledge, and the environment is regarded as knowledge management. Knowledge Management is a set of capabilities for acquiring knowledge, storage, application, utilization, sharing, creation and its internalization(Pattnayak et al., 2017; Yoo & Huang, 2016). In order to successfully engage in knowledge related activities, Passion has been regarded as a precondition. Passion is regarded as an emotion in Knowledge Management for attaining a better understanding of knowledge related work(Yeh & Chu, 2018). For knowledge management and achieving learning outcomes in the e-learning environment, it is important to develop passion for learning vehicles and learning content.

Passion in a specific area is not sufficient for an individual's motivation towards learning and sustainability. The techniques and approaches used for learning can influence the learning passion as well. It has been confirmed by YOVKOV (2020) that the motivation of students is affected by e-learning. Therefore, students have a higher level of motivation during the utilization of e-learning. Further, self-directed e-learning was identified by Ochukut and Oboko (2021) as a crucial determinant of the learning tendency of students.

Individuals can be provoked to sustain their passion in various subjects and activities through e-learning, but it is not conclusive yet. It has been suggested by some theories and research findings that there is a positive association between KM and a general positive passion. It was claimed by Allen and Renfrey (2017) that knowledge acquisition is significantly contributed by Passion. It acts as an intrinsic factor for the acquisition of knowledge and its transfer. The researchers found that knowledge sharing and exchange becomes meaningful because of Passion. Similarly, it has been found by studies that knowledge sharing is done willingly by passionate teachers with their students. Thus,

knowledge sharing is something, which is enjoyed by passionate people. The sharing of knowledge involves the creation of something innovative and new(Ballesteros et al., 2019; Ochukut & Oboko, 2021). It has been suggested by these results that Passion is an internal motive factor for Knowledge Management. KM is influenced by various types of passion, but their direction is not clear. It can be assumed based on previous research studies on Passion that KM is positively influenced by HP. However, KM is negatively influenced by OP within an e-learning environment.

H1: HP has significant impact on the KNM.

H2: OP has significant impact on the KNM.

The process, which supports a learner in developing learning activities through use of relevant behavioral and cognitive strategies, is referred as self-regulation (Tang, Zhou, & Hu, 2018). The methods for knowledge acquisition are involved in self-regulated learning strategies. These methods include the organization of knowledge, its transformation, monitoring, and structuring with reference to the environmental need (Mulyawati & Tarsidi, 2020; Tang et al., 2018). The emotions and attention of individuals enable them to focus on their activities for achieving the set goals in self-regulation. Self-regulation enables an individual to cope with the changing conditions and circumstances over time without being distracted from the achievement of set goals(Valikhani, Goodarzi, & Hashemi, 2019). Thus, self-regulation gives a better forecast of the learning outcomes.

Considering the association between KM and self-regulation, it has been proposed that learners with self-regulation aim at knowledge or skill acquisition for achieving success. Therefore, self-regulated learners have the intention to use such strategies more frequently. Self-regulation enables individuals to possess a higher level of knowledge acquisition and the development of a knowledge network. This has been proved by several empirical studies (Greene, Plumley, & Urban, 2019). It is important to note that when learners are trained for regulating their learning in a web-based environment and hypermedia presence, they are able to have a better understanding of complex topics (Haslam, 2017). It can be suggested by these findings are KM is

improved with self-regulation in e-learning environments.

H3: SLR has significant impact on the KNM.

H4: HP has significant impact on the SLR.

H5: OP has significant impact on the SLR.

It has been suggested in this research that a mediating role can be played by self-regulation in the relation of KM and Passion in an e-learning environment. Passion is a motivating factor for individuals that affects their tendency and level of engagement to improve their current knowledge(Allen & Renfrey, 2017). However, learners are assisted for improved success and achievement through self-regulation. Considering this perspective, self-regulation works as a catalyst in KM (Haslaman, 2017). It was pointed by Costley and Lange (2017) that learners come across more opportunities in any e-learning environment for active engagement and self-regulation.

Learners can be guided for organizing their learning schedule through flexibility, convenience, and e-learning autonomy. It helps them in improved engagement for the activities they are interested in. It has been found that self-regulation is higher among individuals who are self-determinate (Altarwneh et al., 2019). According to SDT, self-determinate individuals aim at the satisfaction of their basic competence needs, relatedness to others, and autonomy for improved outcomes(Altarwneh et al., 2019). In the dualistic model of Passion, this tendency is line with HP (Miller, 2018). Moreover, it has been found by empirical studies that there is a positive relation between HP and autonomous Motivation(Salloum et al., 2019). Therefore, self-regulation can be influenced by Passion in the e-learning process. Good learning outcomes cannot be achieved all alone by Passion. It is important for learners to find out different methods for monitoring the process of learning. Three elements are involved in self-regulated learning. The first element is the adoption of learning strategies for self-regulation. The second element is the responsiveness of an individual towards self-oriented feedback of effective learning. Lastly, the third element involves interdependent motivational processes. The ability to set learning goals, monitoring and regulating the process is also

referred as self-regulation(Haslaman, 2017). The learning abilities of individuals with self-regulation are more active as they constantly try to seek out knowledge as required. This enables them to become knowledgeable and self-aware in the learning process (Tang et al., 2018).

Therefore, a crucial role is played by self-regulation as a mediator, which improves the influence of Passion on Knowledge Management in an e-learning environment. Individuals possessing HP possess improved skills of self-regulation, supporting them in KM. However, individuals having OP have impeded self-regulation, which leads to deterioration of KM in the e-learning process.

H6: SLR mediates the relationship between HP and KNM.

H7: SLR mediates the relationship between OP and KNM.

Measure and Methods

In order to estimate The inventory of passion in e-learning, the scale was employed from the study of Yeh and Chu (2018). The self-regulation scale is adapted from the previous studies of Yeh and Chu (2018), and knowledge management scale is adapted from the previous studies of Yeh and Chu (2018). The data is collected with the aid of a questionnaire. the students, studying in the higher education institutes of Pakistan . The demographic of the respondents is explained in this section, the descriptive statistics is used to explain these characteristics. The response rate of the study is 47.3 percent which is significantly higher than the threshold level of 30 percent. The SEM-PLS, which is among the most robust techniques for the hypothesis testing involving the structural models.

Analysis

SEM-PLS is a two-step procedure namely the measurement model and structural model. The reliability and validity of model is analyzed using measurement model and relationship between and among the variables is explained through the structural model(Hair, Hult, & Ringle, 2016; Henseler et al., 2016; Naala, Nordin, & Omar, 2017). The measurement model of the current study is shown in the figure 1

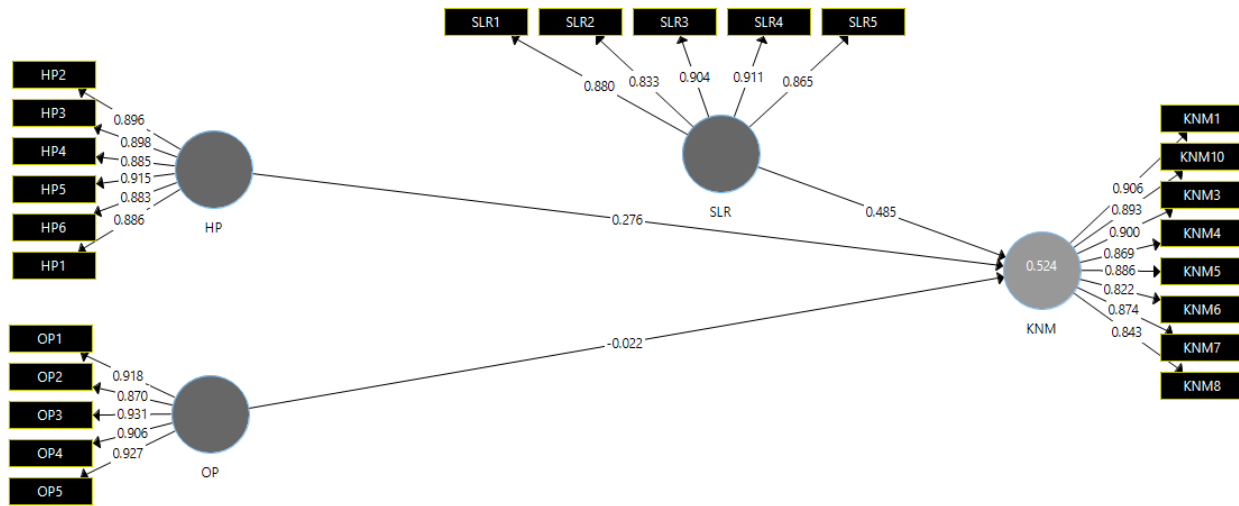


Figure 1: Measurement Model

To determine the reliability of individual item, the outer loading is used (Akter, Fosso Wamba, & Dewan, 2017; Hair et al., 2016; Mikalef & Pateli, 2017). The item with loading value 0.70 or more are retained, and item with loading less than 0.70 are excluded from the analysis(Hair et al., 2016;

Hair et al., 2017; Richter, Cepeda, & Roldán, 2016; Basheer et al., 2018; Hafeez et al., 2018; Basheer et al., 2019; Hameed et al., 2019; Muneer et al., 2019; Basheer et al., 2021; Nisar et al., 2021; Nuseir et al., 2020).. The outer loading values are shown in the table 1 below.

Table 1: Outer Loadings

	HP	KNM	OP	SLR
HP2	0.896			
HP3	0.898			
HP4	0.885			
HP5	0.915			
HP6	0.883			
KNM1		0.906		
KNM10		0.893		
KNM3		0.900		
KNM4		0.869		
KNM5		0.886		
KNM6		0.822		
KNM7		0.874		
KNM8		0.843		
OP1			0.918	
OP2			0.870	
OP3			0.931	
OP4			0.906	
OP5			0.927	
SLR1				0.880

SLR2				0.833
SLR3				0.904
SLR4				0.911
SLR5				0.865
HP1	0.886			

Ong and Puteh (2017), and Akter et al. (2017) argued that validity test provides the ability of an instrument for measuring a particular construct. Following the Hatamifar, Darban, and Rezvani (2018), the average variance extracted, and

composite reliability are the two of procedures employed to ensure the reliability of model. The reliability of the items is shown in the table 2 below.

Table 2: Reliability

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
HP	0.950	0.951	0.960	0.799
KNM	0.956	0.957	0.963	0.765
OP	0.948	0.951	0.960	0.829
SLR	0.926	0.930	0.944	0.773

To establish a post analysis distinction between and among the measures, the discriminant validity is used. According to Fornell-Larcker Criterion, to establish the discriminant validity the diagonal

value in the validity matrix must be greater than the other values. The results of discriminant validity, shown in the table 3 confirm that the diagonal values are higher than the other values.

Table 3: Validity

	HP	KNM	OP	SLR
HP	0.894			
KNM	0.797	0.875		
OP	0.791	0.867	0.901	
SLR	0.710	0.715	0.815	0.879

Once the reliability, and validity of the measurement model is established, then the next step is to establish the path relationships between and among the variables of the study (Basheer, Hameed, Rashid, & Nadim, 2019; Naala et al.,

2017). The bootstrapping procedure is employed to determine the t-values and path coefficients of the paths. The result of the bootstrapping is mapped in the figure 2 shown in the table 4 below.

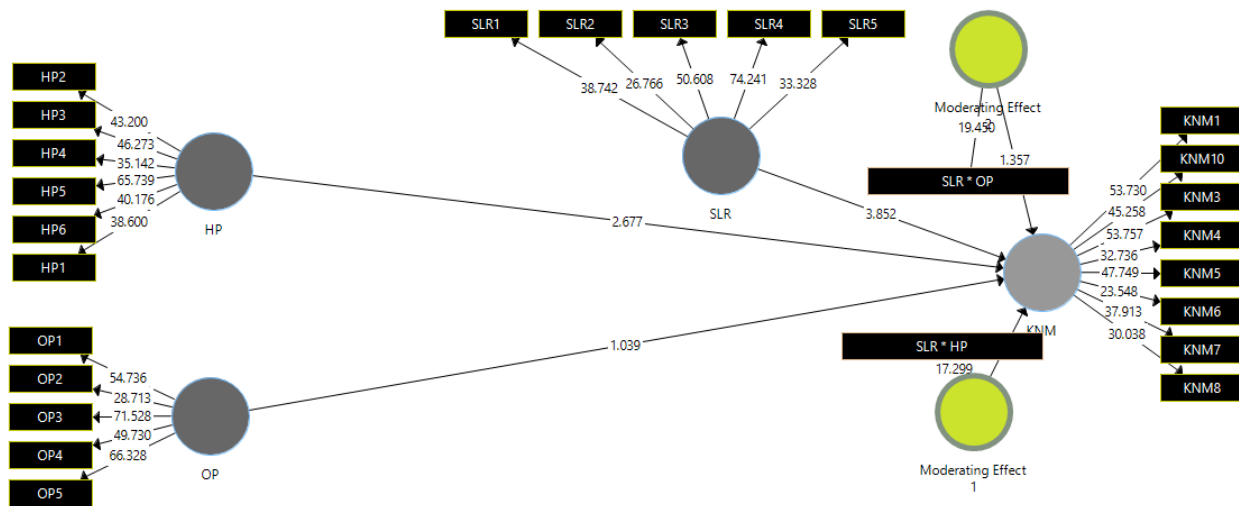


Figure 2: Structural Model
Table 4: Direct Relationship

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
HP -> KNM	0.296	0.290	0.110	2.677	0.004
SLR*HP -> KNM	0.292	0.285	0.148	2.623	0.000
SLR*OP -> KNM	0.222	0.214	0.164	1.357	0.087
OP -> KNM	-0.143	-0.124	0.137	1.039	0.149
SLR -> KNM	0.667	0.657	0.173	3.852	0.000

The results in the table 4 indicate that the all the direct paths except the OP -> KNM, are significant at p-value less 0.05. Th results indicate that the HP, has significant impact on knowledge management of Pakistan n students and self-regulation also plays a significant role of determining the knowledge management of Pakistan n students.The second objective of the study is to examine the moderating role of self-regulations in the relationship between the HP and KNM, and between the OP and KNM.

The results indicatesshat the self-regulationsmoderate the relationship between the HP and KNM, whereas the SLR fails in determining the relationship between the OP and KNM.

The percentage of variance in the model is explained through R-square, R-square values are defined by Hair et al. (2017) as large, medium, and small, depending on the obtained values, i.e. 0.67, 0.33, and 0.19, respectively.

Table 5: R-Square

	R Square
KNM	0.524

Conclusion

The model proposed in this study is a good fit model, as revealed by SEM analysis. A crucial role is played by self-regulation as a mediator in the relation of KM and Passion.. Therefore, the learning processes are required to speed up based on their

preferences(Srivastava & Haider, 2017). Self-regulated learners are likely to have awareness about learning strategies, overviewing processes and altering the set goals for improved success(Schwam, 2018). Improved level of self-regulation among learners helps them in the better acquisition of knowledge, storage, application,

creation, and sharing within an e-learning environment. Further, the results of the study are consistent with the self-regulation's self-concordance model (Caltabiano, Caltabiano, & Malley, 2017). According to this model, more efforts are made by individuals who aim at achieving personal goals based on self-directed needs. These individuals aim at self-satisfaction through the fulfilment of self-directed goals (Caltabiano et al., 2017). This motivational factor is crucial in strengthening self-regulation behaviour (Arezoobodaghi & Sheslami, 2020; Rashedi & Schonert-Reichl, 2019; Zahra et al., 2019). Alternatively, it has been found by researchers that there is a low association between OP and self-regulation (Arslan, 2018). KM and self-regulation are regarded to be opponents by OP and HP. However, there is an indirect influence of HP on KM mediated through self-regulation. Self-regulation supports college students in monitoring their learning processes within an e-learning environment.

The two dimensional model of Passion is supported by the results of this study. Moreover, the study has

made contribution to the existing studies on the dualistic model of Passion, as it has focused on internal as well as external factors related to e-learning. It has been suggested by the research that there are four proposed forms of Passion, including internal OP, external OP, internal HP and external HP. However, these four types of passion are positively linked with each other but have different influences on the KM and self-regulation of students in the e-learning context. The relation between KM and self-regulation has been empirically investigated by a few studies within an e-learning environment. A limited number of studies have worked on the positive association between KM and self-regulation. The current study has focused on the role of self-regulation as a mediator on KM and Passion. For improving self-development and lifelong learning in this digital society, it is crucial to enhance HP of students for provoking self-regulation in their learning processes. This would support them in coping and surviving in the changing circumstances of this dynamic world.

REFERENCES

1. Akter, S., Fosso Wamba, S., & Dewan, S. (2017). Why PLS-SEM is suitable for complex modelling? An empirical illustration in big data analytics quality. *Production Planning & Control*, 28(11-12), 1011-1021.
2. Allen, R. A., & Renfrey, S. (2017). The perceived characteristics of Knowledgeable by UK MOD procurement function staff.
3. Alqurashi, E. (2016). Self-efficacy in online learning environments: A literature review. *Contemporary Issues in Education Research (CIER)*, 9(1), 45-52.
4. Altarwneh, R. J., Daud, W. N. W., & Shamaileh, L. R. (2019). MEDIATING ROLE OF KNOWLEDGE MANAGEMENT EFFECTIVENESS ON HRM PRACTICES AND ORGANISATION PERFORMANCE RELATIONSHIP. *Trends in Social Sciences NO PUBLICATION FEES EFFECTIVE FROM JANUARY 2021*, 1(1), 42-56.
5. Arezoobodaghi, A., & Sheslami, S. (2020). Effectiveness of Self-Determination Skills Training on Academic Self-Regulation and Psychological Hardiness among Students. *Journal of Curriculum Research*, 10(1), 300-321.
6. Arslan, G. (2018). School-based social exclusion, affective wellbeing, and mental health problems in adolescents: A Study of mediator and moderator role of academic self-regulation. *Child indicators research*, 11(3), 963-980.
7. Ballesteros, J. L., Díaz, N. L., & Aguiar, I. (2019). The Role of Leadership in the Management of Conflict and Knowledge Sharing in the Research Groups of a Spanish Public University. *Public Organization Review*, 1-16.
8. Basheer, Hameed, W. U., Rashid, A., & Nadim, M. (2019). Factors effecting Employee Loyalty through Mediating role

- of Employee Engagement: Evidence from PROTON Automotive Industry, Malaysia. *Journal of Managerial Sciences*, 13(2).
9. Basheer, M. F., Hafeez, M. H., Hassan, S. G., & Haroon, U. (2018). Exploring the role of TQM and supply chain practices for firm supply performance in the presence of organizational learning capabilities: a case of textile firms in Pakistan. *Paradigms*, 12(2), 172-178.
 10. Basheer, M. F., Raof, R., Jabeen, S., & Hassan, S. G. (2021). Exploring the Nexus Among the Business Coping Strategy: Entrepreneurial Orientation and Crisis Readiness—A Post-COVID-19 Analysis of Pakistani SMEs. In *Handbook of Research on Entrepreneurship, Innovation, Sustainability, and ICTs in the Post-COVID-19 Era* (pp. 317-340). IGI Global.
 11. Basheer, M., Siam, M., Awn, A., & Hassan, S. (2019). Exploring the role of TQM and supply chain practices for firm supply performance in the presence of information technology capabilities and supply chain technology adoption: A case of textile firms in Pakistan. *Uncertain Supply Chain Management*, 7(2), 275-288.
 12. Bootz, J.-P., Durance, P., & Monti, R. (2019). Foresight and knowledge management. New developments in theory and practice. *Technological Forecasting and Social Change*, 140, 80-83.
 13. Caltabiano, M., Caltabiano, N., & Malley, K. (2017). Attachment style and dietary self-regulation in persons at risk for type II diabetes.
 14. Costley, J., & Lange, C. H. (2017). Video lectures in e-learning. *Interactive Technology and Smart Education*.
 15. Fellnhofner, K. (2017). The power of passion in entrepreneurship education: Entrepreneurial role models encourage passion? *Journal of Entrepreneurship Education*, 20(1), 58.
 16. Fin, L. S., & Ishak, Z. (2018). Educational Beliefs and Passion among Preservice Teachers: A Comparative Statistical Analysis. *The Educational Review, USA*, 2(5), 281-288.
 17. Greene, J. A., Plumley, R. D., & Urban, C. J. (2019). Modeling temporal self-regulatory processing in a higher education biology course. *Learning and Instruction*, 101201.
 18. Hair, Hult, G. T. M., & Ringle, C. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*: Sage publications.
 19. Hair, Matthews, L. M., Matthews, R. L., & Sarstedt, M. (2017). PLS-SEM or CB-SEM: updated guidelines on which method to use. *International Journal of Multivariate Data Analysis*, 1(2), 107-123.
 20. Hafeez, M. H., Basheer, M. F., Rafique, M., & Siddiqui, S. H. (2018). Exploring the Links between TQM Practices, Business Innovativeness and Firm Performance: An Emerging Market Perspective. *Pakistan Journal of Social Sciences (PJSS)*, 38(2).
 21. Hameed, W. U., Nawaz, M., Basheer, M. F., & Waseem, M. (2019). The Effect of AmanahIkhtiar Malaysia (AIM) on Microenterprise Success in Sabah State Malaysia. *Dialogue* (1819-6462), 14(2).
 22. Haslam, T. (2017). Supporting self-regulated learning: A digital storytelling implementation.
 23. Hatamifar, P., Darban, A., & Rezvani, M. R. (2018). Analyzing Quality of Supply Chain Management in Hotels of Isfahan Using the Partial Least Squares (PLS). *Journal of Quality Assurance in Hospitality & Tourism*, 19(2), 172-191.
 24. Henseler, J., Hubona, G., & Ray, P. A. (2016). Using PLS path modeling in new technology research: updated guidelines. *Industrial Management & Data Systems*.
 25. Inkinen, H. (2016). Review of empirical research on knowledge management practices and firm performance. *Journal of Knowledge Management*.
 26. Li, D.-C., & Tsai, C.-Y. (2020). An Empirical Study on the Learning Outcomes of E-Learning Measures in Taiwanese Small and Medium-Sized Enterprises (SMEs) Based on the Perspective of Goal

- Orientation Theory. *Sustainability*, 12(12), 5054.
27. Mayweg, E., Enders, N., & Zimmermann, M. (2020). Kommunikation und E-Learning: Bedingungen, Gestaltungsmöglichkeiten und Qualitätssicherung beim Einsatz von Foren in der Hochschullehre. *die hochschullehre*, 6, 35-60.
28. Mikalef, P., & Pateli, A. (2017). Information technology-enabled dynamic capabilities and their indirect effect on competitive performance: Findings from PLS-SEM and fsQCA. *Journal of Business Research*, 70, 1-16.
29. Miller, K. (2018). *Knowledge Management in Higher Education Online Learning Environments*. University of Maryland University College.
30. Mulyawati, D., & Tarsidi, I. (2020). *Self-Regulated Learning Constructions for First Middle School Students*. Paper presented at the International Conference on Educational Psychology and Pedagogy-" Diversity in Education"(ICEPP 2019).
31. Muneer, S., Basheer, M. F., Shabbir, R., & Zeb, A. (2019). Does Information Technology Expedite the Internal Audit System? Determinants of Internal Audit Effectiveness: Evidence from Pakistani Banking Industry. *Dialogue* (1819-6462), 14(2).
32. Nisar, Q. A., Basheer, M. F., Hussain, M. S., & Waqas, A. (2021). The Role of Leaders' Emotional Sincerity towards Followers' Trust: Leaders' Integrity & Quality Relationship. *Journal of Contemporary Issues in Business and Government*, 27(1), 472-479.
33. Nuseir, M. T., Basheer, M. F., & Aljumah, A. (2020). Antecedents of entrepreneurial intentions in smart city of Neom Saudi Arabia: Does the entrepreneurial education on artificial intelligence matter?. *Cogent Business & Management*, 7(1), 1825041.
34. Naala, M., Nordin, N., & Omar, W. (2017). Innovation capability and firm performance relationship: A study of pls-structural equation modeling (Pls-Sem). *International Journal of Organization & Business Excellence*, 2(1), 39-50.
35. Ochukut, S. A., & Oboko, R. O. (2021). Strategies for Managing Cognitive Load and Enhancing Motivation in E-Learning *Handbook of Research on Equity in Computer Science in P-16 Education* (pp. 248-264): IGI Global.
36. Ong, M. H. A., & Puteh, F. (2017). Quantitative Data Analysis: Choosing Between SPSS, PLS, and AMOS in Social Science Research. *International Interdisciplinary Journal of Scientific Research*, 3(1), 14-25.
37. Pattanayak, J., Pattnaik, S., & Dash, P. (2017). Knowledge management in e-learning a critical analysis. *International Journal of Engineering and Computer Science*, 6(5), 21528-21533.
38. Rashedi, R. N., & Schonert-Reichl, K. A. (2019). Yoga and willful embodiment: a new direction for improving education. *Educational Psychology Review*, 1-10.
39. Richter, N. F., Cepeda, G., & Roldán, J. L. (2016). European management research using partial least squares structural equation modeling (PLS-SEM). *European Management Journal*, 34 (6), 589-597.
40. Salloum, S. A., Alhamad, A. Q. M., & Emran, M. (2019). Exploring students' acceptance of e-learning through the development of a comprehensive technology acceptance model. *IEEE Access*, 7, 128445-128462.
41. Schiphof, L., & Hettinga, F. J. (2017). Passion and pacing in endurance performance. *Frontiers in physiology*, 8, 83.
42. Schwam, D. M. (2018). Understanging Self-regulated Learning.
43. So, W. W. M., Chen, Y., & Wan, Z. H. (2019). Multimedia e-learning and self-regulated science learning: A study of primary school learners' experiences and perceptions. *Journal of Science Education and Technology*, 28(5), 508-522.
44. Srivastava, B., & Haider, M. T. U. (2017). Personalized assessment model for alphabets

- learning with learning objects in e-learning environment for dyslexia. *Journal of King Saud University-Computer and Information Sciences*.
45. Tang, Y., Zhou, Z., & Hu, X. (2018). What are the effects of self-regulation phases and strategies for Chinese students? A meta-analysis of two decades research of the association between self-regulation and academic performance. *Frontiers in Psychology*, 9, 2434.
46. Tasci, Ç. (2019). A multivariable examination of the relationships between EFL instructors' self-efficacy beliefs and motivation in higher education.
47. Vale, L., & Fernandes, T. (2018). Social media and sports: driving fan engagement with football clubs on Facebook. *Journal of Strategic Marketing*, 26(1), 37-55.
48. Valikhani, A., Goodarzi, M. A., & Hashemi, R. (2019). Psychometric properties of dispositional self-regulation scale in Iranian population and predicting inhibitory/initiatory self-control on the basis of it. *Current Psychology*, 38(1), 154-164.
49. VanHorn, C. L. (2019). *Exploring Relationships Among Passion, Self-Compassion, Fear of Self-Compassion, Deliberate Practice, and Performance in Canadian Women's Fastpitch Athletes*. Faculty of Graduate Studies and Research, University of Regina.
50. Yeh, Y.-c., & Chu, L.-H. (2018). The mediating role of self-regulation on harmonious passion, obsessive passion, and knowledge management in e-learning. *Educational Technology Research and Development*, 66(3), 615-637.
51. Yoo, S. J., & Huang, W. D. (2016). Can e-learning system enhance learning culture in the workplace? A comparison among companies in South Korea. *British Journal of Educational Technology*, 47(4), 575-591.
52. YOVKOV, L. (2020). MOTIVATION FOR TRADITIONAL STUDY AND E LEARNING OF DESIRED AND UNDESIRED SPECIALTIES. *Anthropological Researches and Studies*, 1(10), 123-130.
53. Zahra, M., Hameed, W. U., Fiaz, M., & Basheer, M. F. (2019). Information technology capability a tool to expedite higher organizational performance. *UCP Management Review (UCPMR)*, 3(1), 94-112.