# Enhancing Relationship between Job Performance and Intellectual Capital through Organizational Commitment: An Evidence from Higher Education Institutes

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### Abstract

This research observed the factors, which influenced attitude (ATT) and job satisfaction (JS), through the mediating role of Intellectual capital (IC) and organization commitment (OC) on job performance (JP) in business institute Lahore, Pakistan. The research was carried out in the education sector of Lahore using convenience-sampling techniques. 420 questionnaires were distributed among all academic staffs. Questionnaire included 29 items in total. Analysis has been done through Smart PLS (Ringle, C.M., Wende,S., and Becker, 2015). Future research & limitations has also been discussed in this research. There are nine hypotheses out of which six showed significant paths. However, the rest showed statistically insignificant results.

This research is helpful in the educational sector, in order to better understand and implement the concept of IC as a mediating factor between ATT, JS, OC & JP. It will also be helpful for the institutional policy makers for getting effective & efficient results in the respective field.

This unique research fills the gap in literature concerned with the affiliation between IC & JP. It is also the first to provide insight about the IC details at business institutes Lahore.

Keywords: Attitude, Job satisfaction, Intellectual capital, Organizational commitment & Job performance

### Introduction

It has been found that there is an increasing awareness in the field of academics & the researchers are finding new & innovative ways to quantify intellectual capital (IC) (Todericiu & Şerban, 2015). During the last decade, rapidly growing interest related to IC has been widening from firms to public and private universities. As far as institutional performance is concerned, HEI's are trying to make them more flexible, competitive & comparable (Elena & Paloma Sánchez, 2006).

In Pakistan, education is one of the fastest growing sectors. It has gained importance in the developing countries with the passage of time. It has been stated that the retention of well-qualified & experienced professional teaching staff has become a challenge for Higher Education Institutions (Rasheed, 2018).

Teachers in education sector now a days are concerned to attract intelligence & talents. Younger teachers are not satisfied because of unhappy circumstances than those teachers who are well experienced (Dhull & Jain, 2017).

#### **Problem Statement**

This research emphasizes on the relationship of Intellectual capital with job performance in the business schools. In today's rapidly growing economy, education is recognized as one of the most important elements for growth. In recent years, education has become the significant field of

research (Akhtar, 2007). In Pakistan, higher education is facing great deal of challenges as government is still in the process of policy formation for higher education that can result into high quality of education at par with the international standards. Furthermore, there is a lack of motivation, lack of teamwork and low organizational commitment amongst teachers because of low level of job satisfaction. This research has been designed to investigate different factors of job performance.

### Scope of research

This research was accomplished in the business institutes and Lahore was the main target for this research. It was focused on professors, associate professors, assistant professors, and students. For further research scope of this topic was widen. The samples were interpreted very carefully as they were limited. The results of the research were therefore limited.

### **Objectives**

The aim of this research is to find out the link between Intellectual capital (IC) & (JP). Educational institutes cannot achieve their goals without the support of their employees. Following are the few objectives of this research

- To examine the impact of Intellectual capital on job performance
- To examine the impact of attitude on intellectual capital
- To examine the impact of job satisfaction on intellectual capital

• To examine the mediating role of intellectual capital & organizational commitment on job performance

• Investigating the connection between attitude & job satisfaction on job performance in the presence of intellectual capital

### **Research Questions**

Following are the research questions that will be answered during the course of this research

- What is the impact of Intellectual capital on job performance?
- What is the impact of attitude on Intellectual capital?
- What is the impact of job satisfaction on Intellectual capital?
- What is the impact of Intellectual capital on organizational commitment?
- What is the impact of organizational commitment n Intellectual capital?

• What is the impact of attitude on job performance through the mediating role of Intellectual capital?

• What is the impact of job satisfaction on job performance through the mediating role of Intellectual capital?

• What is the impact of attitude on job performance through the mediating role of intellectual capital & organizational commitment?

• What is the impact of job satisfaction on job performance through the mediating role of intellectual capital & organizational commitment?

### **Literature Review**

### Attitude

Teachers portray different attitude toward teaching profession. Attitude is related to positive & negative behavior of teachers within the education sector. In the modern era attitude is based on the behavioral outcome. As it is the psychological process, which combine different values, morals, & motives (Dhull & Jain, 2017). Attitude and trust are considered as one of the important aspects in teaching as it received great amount of attention in recent years. It influence actions of teachers within their classroom (Tondeur, Van, Ertmer, & Ottenbreit, 2017).

#### Job satisfaction

The term job satisfaction has its roots in Industrial Psychology, which has now became one of the broadly discovered aspect in human effectiveness at work (Dhull & Jain, 2017). Satisfaction within the job is compulsory as it adds value to work. In other words, it is can be said that satisfaction of job is a highly renowned psychological term for successful functioning in any profession (Dhull & Jain, 2017).

Satisfaction within the job is considered a positive emotional state which result from an individual's experience toward their job (Crisci, Sepe, & Malafronte, 2018). Recent studies done in the field of job satisfaction depicts that satisfaction of teachers is gauged through their affective feedback towards the teaching profession (Ingusci, Callea, Chirumbolo, & Urbini, 2016).

#### Intellectual capital

Intellectual capital is known as a knowledge learning, which has gained a lot of attention & importance during the last centuries (Campisi & Costa, 2008). There are different theories such as human capital theory, organizational learning theory, information processing theory related to intellectual capital, which suggests that IC build values, & hence increases organizational performance through the reduction in cost & building customer's satisfaction level (Secundo, Massaro, Dumay, & Bagnoli, 2018).

According to the research, intellectual capital is provSed as an important element of human capital and education. On the other hand, model has been developed for human capital showing they are held responsible for each other (Barro, 1991).

Structural capital is known as the main establishment of information that ultimately drive the organizations into their overall missions, organizational goals and vision (Gogan, Duran, & Draghici, 2015). Relational capital also plays an important role in promoting knowledge-based economy. It provides different ideas in order to improve the companies' strategies and their policies (Keskin, 2006).

### **Organizational commitment**

In educational sector, commitment of teachers is measured on high levels. Previous researches in the field of private & public sector schools focused upon the administration department (Bodla & Naeem, 2008). The research showed that Principals' behavior has been positive because of their teachers' commitment level. Therefore, in Pakistan, teachers are considered as an important component of the education system (Hart, Willower, & Hart, 1994).

Organization support theory (OST) has been used, which, states that an individual who is working within educational department is being cared. Therefore, the department should contribute towards the teachers' well-being (Eisenberger & Stinglhamber, 2011; Rao, Kareem Abdul, & D'souza, 2017).

## Job performance

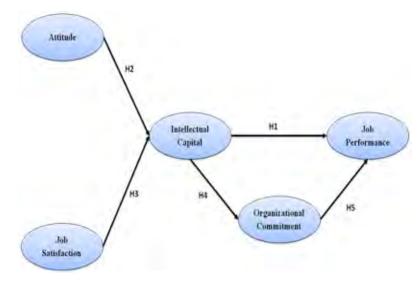
In industry and education sector, job performance is considered as an important construct (Van Iddekinge, Aguinis, Mackey, & DeOrtentiis, 2018). On the other hand, performance is assessed on the basics of financial figures. It can also be calculated through the combination of behaviors as well as task related concepts (Jex & Britt, 2014).

Performance within a job is also viewed as an action in which a person or a group is able to fulfill the assigned task successfully under given resources (Dar, Akmal, Naseem, & Khan, 2011).

#### **Conceptual Model**

The conceptual model is displayed in (Figure 1). This model is showing the association between different variables. Attitude (ATT) & job satisfaction (JS) are independent variable, Intellectual capital (IC) & organizational commitment (OC) is mediating variables and job performance (JP) Openly accessible at http://www.european-science.com 592

is dependent variable. This model is showing that, attitude (ATT) & job satisfaction (JS) influence on intellectual capital (IC). This research predicts that attitude (ATT) & job satisfaction (JS) interactively enhance intellectual capital (IC) which then increases job performance (JP) through organizational commitment (OC) of teachers. Adopted and amended from (Dinc, 2017).



**Figure 1. Conceptual model** 

Research hypotheses are shown in (Table 1).

H1	Intellectual capital has positive impact on job performance.
H2	Attitude has positive impact on Intellectual capital.
H3	Job satisfaction has positive impact on Intellectual capital.
H4	Intellectual capital has positive impact on organizational commitment.
H5	Organizational commitment has positive impact on job performance.
H6	Attitude has positive impact on job performance through mediating role of Intellectual
по	capital.
H7	Job satisfaction has positive impact on job performance through mediating role of Intel-
п/	lectual capital.
H8	Attitude has positive impact on job performance through mediating role of Intellectual
по	capital & organizational commitment.
H9	Job satisfaction has positive impact on job performance through mediating role of Intel-
119	lectual capital & organizational commitment.

## Methodology

A comprehensive literature review of the topic is the basis for the conceptual structure for IC and JP. The aim of this research was to gather data from different private business schools in Lahore, Pakistan. The standard of HEC is to focus on genuinely spiritual IC activities. For this study, the quantitative analysis approach is used and Questionnaires have been for the collection of data, which comprised of 29 items. Six business schools were taken due to time limitation. Sample of

universities for data collection include National College of Business Administration & Economics (NCBA & E), University of South Asia (U.S.A), IMS (Pak-Aims), University of Central Punjab UCP, Lahore Garrison University (LGU) and University of Management and Technology UMT. Unit of analysis were professors, associate & assistance professors and students. Convenience sampling technique was used for this purpose. Table 2 shows different items which have been adopted and amended from various sources.

radic 2. Wicasures					
Variables	Items	References			
Intellectual capital	12	(Sharabati, Jawad, & Bontis, 2010)			
Job satisfaction	5	(Spector, 1994)			
Job Performance	4	(Johari & Yahya, 2012)			
Organizational Commitment	5	(Mowday, Steers, & Porter, 1979)			
Attitude	3	(Fisher & Cresswell, 1998)			

## Table 2. Measures

Seven points Likert Scale has been used for the above-mentioned variables starting from 1 (Strongly Disagree) to 7 (Strongly Agree). It is a 2<sup>nd</sup> Order Construct.

## Results

## **Reliability and Validity**

Composite reliability is also recognized as Dillon-Goldstein's rho, factor reliability, Joreskog's rho, McDonald's ( $\omega$ ) (Tenenhaus, Vinzi, Chatelin, & Lauro, 2005). The value of composite reliability, must be equal to or greater than 0.7. However 0.6 is also acceptable in some cases (Fornell, Larcker, 1981; Henseler, Hubona, & Ray, 2016). In table 3 composite reliability is above the threshold value, which states the consistency level of the research. The composite reliability generate the accurate reliability estimates as compared to Cronbach's Alpha (Peterson & Kim, 2013). Cronbach's alpha ( $\alpha$ ) in table 3 also showed that the figures are in an acceptable range.

Average Variance Extracted (AVE) is used to check the steadiness level of the construct with each other. The acceptable range for AVE should be 0.5 or higher, but in some cases 0.4 is also considered acceptable (Fornell, Larcker, 1981). Table 3 is showing that the values are in an acceptable range.

Variables	Composite Reliability	Average Variance Extracted (AVE)
ATT	0.429	0.302
IC	0.913	0.467
JP	0.876	0.641
JS	0.853	0.595
OC	0.747	0.496

## Table 3. Results

## Coefficient of determination $(\mathbf{R}^2)$ and adjusted $(\mathbf{R}^2)$

 $R^2$  evaluates the proportion of an endogenous variable, which describes the independent construct. The value should lie between 0 and 1. It depends upon the type of research (Cohen, 1988). If the values for  $R^2$  coefficients & adjusted  $R^2$  is below 0.02 that means that it predicts mutual effect in

latent variables, which might be weak enough to be measured with reference from the practical opinion (Wassertheil & Cohen, 1970).

Table 4 is showing the value for endogenous variable, which is JP 0.605. Which states that the values for the other variable are as follows: Intellectual capital (IC) explains 63%, and Organizational commitment (OC) explains 62% of the variance.

Construct	$\mathbf{R}^2$	<b>R<sup>2</sup></b> Adjusted			
IC	0.638	0.636			
JP	0.607	0.605			
OC	0.629	0.628			

### Table 4. Structural Model

## Mean, STDEV, T-Values, P-Values

Table 5 is showing mean, standard deviation, t values and p values. The t value in table 5 is in a significant range, accept for IC -> OC path, which is showing insignificant range of 0.318.

Variables	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
ATT -> IC	0.304	0.329	0.104	2.906	0.004
IC -> JP	0.039	0.033	0.122	0.318	0.750
IC -> OC	0.793	0.791	0.041	19.352	0.000
JS -> IC	0.564	0.541	0.095	5.962	0.000
OC -> JP	0.748	0.753	0.124	6.050	0.000

## Table 5. Mean, STDEV, T-Values, P-Values

## Path Coefficient

Path coefficient is the association between two constructs, which, is also known as the beta value ( $\beta$ ). It ranges from -1 to +1. The value of -1 is associated with negative correlation whereas +1 is associated with positive correlation. There is no correlation if the value is 0 (Wong, 2013).

In table 6 the connection between ATT & IC is significant ( $\beta$ =0.304). The association between IC & JP is showing insignificant relationship ( $\beta$ =0.039). The association between IC & OC is stating positive & significant relationship ( $\beta$ =0.793). The connection between JS & IC also stated positive link ( $\beta$ =0.564). The association between OC & JP stated that the link is also significant ( $\beta$ =0.748).

	ATT	IC	JP	JS	OC
ATT		0.304			
IC			0.039		0.793
JP					
JS		0.564			
OC			0.748		

**Table 6. Path Coefficient** 

Graphical Representation of the Model

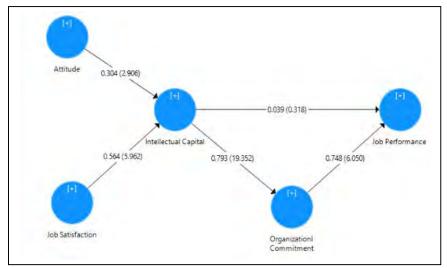


Figure 2. Model Analyses through Algorithm

Figure 2 is representing the result of smart PLS algorithm showing that the values for path coefficient and  $R^2$ .

	Hypothesis	Suggested	Path Coeffi- cient	t-Statistics	Confirmed
H <sub>1</sub>	IC has positive impact on JP.	+	0.039	0.318	No
$H_2$	ATT has positive impact on IC.	+	0.304	2.906***	Yes
H <sub>3</sub>	JS has positive im- pact on IC.	+	0.564	5.962***	Yes
$H_4$	IC has positive impact on OC.	+	0.793	19.352***	Yes
H5	OC has positive impact on JP.	+	0.748	6.050***	Yes
H <sub>6</sub>	ATT has positive im- pact on JP through mediating role of IC.	+	0.012	0.924*	No
<b>H</b> <sub>7</sub>	JS has positive im- pact on JP through mediating role of IC.	+	0.022	1.89	No
H <sub>8</sub>	ATT has positive im- pact on JP through mediating role of IC & OC.	+	0.180	0.007	No

## Table 7. Hypotheses Result

	Hypothesis	Suggested	Path Coeffi- cient	t-Statistics	Confirmed
H9	JS has positive im- pact on JP through mediating role of IC & OC.	Т	0.335	0.013 [	No

Significance at 10% (1.645)\*

Significance at 5% (1.96) \*\*

Significance at 1% (2.576) \*\*\*

Hypothesis H1 in table 7 shows that the path is statistically insignificant as t value is 0.318. It clearly shows that this path do not exert significant impact on JP.

Hypothesis H2 in table 7 shows that this path is significant and has a positive impact over IC. The value for t is 2.906.

Hypothesis H3 in table 7 shows that the path of Job Satisfaction has positive impact on Intellectual Capital. Therefore, the t value is 5.962. It proves to be significant.

Hypothesis H4 in table 7 shows that Intellectual Capital has positive impact on Organizational Commitment. Therefore, the t value is 19.352, which is significant.

Hypothesis H5 in table 7 shows that Organizational Commitment has positive impact on Job Performance. Therefore, the t value is 6.050, which, is significant.

Hypothesis H6 in table 7 shows that Attitude has positive impact on Job Performance through mediating role of IC. Therefore, the t value is 0.924, which, is not falling, in the significant range.

Hypothesis H7, H8 and H9 in table 7 shows that the values are not statistically significant, as the t values are 1.89, 0.007, and 0.013 respectively.

## Conclusion

As seen in many previous researches that the concept of IC and job performance is popular Worldwide. Therefore, this research has focused toward the impact of IC and JP through the mediating affect of OC in the educational sector of Lahore, Pakistan. Education should be structured in such way that they encourage and support ongoing learning process, even if a new teacher enters the field. As Pakistan is a developing nation, the concept of IC in the field of education is the prime focus & needs attention. The key issue in the field of education today is value. The problem with the current academic system is that the outcomes obtained by students are inconsistent and do not meet the requirements of the employment market (Higher education Commission 2016). Higher education quality is directly linked to the lack of visionary leadership.

In Pakistan, most of the university's top management is not well-informed about IC principles and its implementation. IC is still seen as a university cost. In proper IC implementation, the greatest obstacle is that top management does not spend large resources on education and training for educational and administrative employees.

The goal of this research was to discover the basic linkage and the effect of IC on JP, while taking into account OC at the same time. By analyzing the path coefficient beta, it is clear that the path between IC & JP is insignificant. This relationship is only affected when mediation (OC) is taken into effect. Results show that the relationship between Intellectual Capital and Job Performance is mediated by Organizational Commitment and moderated by Attitude and Job satisfaction. The following concerns were addressed in this research:

- IC has positive effect on JP
- IC has positive effect on JP through mediating role of OC
- IC has positive effect on JP through mediating role of ATT & JS.

There is a stronger relationship with the influence of mediation.  $R^2$  is greater than 0.26 so it can be graded as a good model. This model shows the ultimate and necessary value of Intellectual Capital and Job Performance.

## **Future Implications**

Policy makers are now in a position to better understand the true impact of globalization, as business incorporate into arrangements with the rest of the world. This particular experience is quite new for the policy makers as the fundamental vibrant of how slump in one country can cause larger slump in other country. Policies have been made in order to improve the literacy rate within the country, which will be beneficial not only for the health but also it will make stronger activities within country.

This research will provide empirical evidence that the educational department with better IC will generate more returns for the country as well as for the educational sector. On the other hand, education sector still consider the imperative role of IC toward the value creation.

#### References

- Akhtar, M. (2007). A comparative research of student attitude, learning and teaching practices in Pakistan and Britain. *Educational Studies*, 33(3), 267–283. https://doi.org/10.1080/03055690701423069
- Barro, R. J. (1991). Economic Growth in a Cross Section of Countries. *The Quarterly Journal of Economics*, 106(2), 407. https://doi.org/10.2307/2937943
- Bodla, M. A., & Naeem, B. (2008). What satisfies pharmaceutical salesforce in Pakistan. In *The International Journal of Knowledge, Culture, & Change Management* (Vol. 8, pp. 152–163).
- Campisi, D., & Costa, R. (2008). A DEA-based method to enhance intellectual capital management. *Knowledge and Process Management*, 15(3), 170–183. https://doi.org/10.1002/kpm.312
- Cohen, J. (1988). Statistical power analysis for the behavioral sciences 2nd ed New York Lawrence Erlbaum Associate Sample size.PDF.
- Crisci, A., Sepe, E., & Malafronte, P. (2018, March 30). What influences teachers' job satisfaction and how to improve, develop and reorganize the school activities associated with them. *Quality and Quantity*, pp. 1–17. https://doi.org/10.1007/s11135-018-0749-y
- Dar, L., Akmal, A., Naseem, M. A., & Khan, U. (2011). Impact of Stress on Employees Job Performance in Business Sector of Pakistan. *Global Journel of Management and Business Research*, *11*(6), 0–4. Retrieved from http://journalofbusiness.org/index.php/GJMBR/article/view/510
- Dhull, D. K., & Jain, D. M. (2017). A Research of Attitude Towards Teaching Profession in Relation To Job Satisfaction Among Secondary. *International Eduaction & Research Journal (IERJ)*, 3(1), 2016–2018.
- Dinc, M. S. (2017). Organizational Commitment Components and Job Performance: Mediating Role of Job Satisfaction. *Pakistan Journal of Commerce and Social Sciences*, *11*(3), 773–789.
- Eisenberger, R., & Stinglhamber, F. (2011). *Perceived organizational support: Fostering enthusiastic and productive employees.* https://doi.org/10.1037/12318-000
- Elena, S., & Paloma Sánchez, M. (2006). Intellectual capital in universities: Improving transparency and internal management. *Journal of Intellectual Capital*, 7(4), 529–548. https://doi.org/10.1108/14691930610709158
- Openly accessible at http://www.european-science.com

- Fisher, D., & Cresswell, J. (1998). Actual and Ideal Principal Interpersonal Behaviour. *Learning Environments Research*, 1(March), 231–247.
- Fornell, Larcker, D. (1981). Stutural Equation Models with Unobservable Variables and Measuremnt Error: Algebra and Statistics. *Journal of Marketing Research*, *18*(3), 382–388. https://doi.org/10.1007/s10113-011-0223-z
- Gogan, L. M., Duran, D. C., & Draghici, A. (2015). Structural Capital A Proposed Measurement Model. *Procedia Economics and Finance*, 23(October 2014), 1139–1146. https://doi.org/10.1016/S2212-5671(15)00503-1
- Hart, D. R., Willower, D. J., & Hart, D. R. (1994). Principals 'Organizational Commitment and School Environmental Robustness. *The Journal of Educational Research*, 87(3), 37–41. https://doi.org/10.1080/00220671.1994.9941239
- Henseler, J., Hubona, G., & Ray, P. A. (2016). Using PLS path modeling in new technology research: Updated guidelines. *Industrial Management and Data Systems*, 116(1), 2–20. https://doi.org/10.1108/IMDS-09-2015-0382
- Ingusci, E., Callea, A., Chirumbolo, A., & Urbini, F. (2016). Job crafting and job satisfaction in a sample of italian teachers: The mediating role of perceived organizational support. *Electronic Journal of Applied Statistical Analysis*, 9(4), 675–687. https://doi.org/10.1285/i20705948v9n4p675
- Jex, S. M., & Britt, T. W. (2014). Organizational Psychology: A Scientist-Practitioner Approach. Retrieved from https://scholar.google.com.pk/scholar?hl=en&as\_sdt=0%2C5&q=Jex%2C+S.+M.+%26+Brit t%2C+T.+W.+2008.+Organizational+Psychology%3A+A+Scientistpractitioner+Approach.+Hoboken%2C+NJ%3A+John-Wiley+%26+Sons.&btnG=
- Johari, J., & Yahya, K. K. (2012). An Assessment of the Reliability and Validity of Job Performance Measurement (Satu Penilaian terhadap Kebolehpercayaan dan Kesahan Pengukuran Prestasi Kerja). *Jurnal Pengurusan*, *36*(2012), 17–31.
- Keskin, H. (2006). Market orientation, learning orientation, and innovation capabilities in SMEs: An extended model. *European Journal of Innovation Management*, 9(4), 396–417. https://doi.org/10.1108/14601060610707849
- Mowday, R., Steers, R., & Porter, P. (1979). The measurement of organizational commitment. Journal of Vocational Behavior, pp. 224–247. https://doi.org/10.1016/0001-8791(79)90072-1
- Peterson, R. A., & Kim, Y. (2013). On the relationship between coefficient alpha and composite reliability. *Journal of Applied Psychology*, 98(1), 194–198. https://doi.org/10.1037/a0030767
- Rao, A. S., Kareem Abdul, W., & D'souza, N. (2017). Perceived outcomes of action learning: research from a large public sector organization in UAE. *Measuring Business Excellence*, 21(4), 291–308. https://doi.org/10.1108/MBE-03-2017-0010
- Rasheed, M. H. (2018). The Factors Influencing Job Commitment of Teaching Staff in University of Sargodha: Mediating Role of Transformational Leadership. *International Journal of Social Sciences, Humanities and Education,* 2(1), 1–17. Retrieved from http://www.ijsshe.com/index.php/ijsshe/article/view/55
- Ringle, C. M., Wende, S., and Becker, J.-M. (2015). "SmartPLS 3." Boenningstedt: SmartPLS GmbH, http://www.smartpls.com. Retrieved from boenningstedt: SmartPLS GmbH, http://www.smartpls.com.
- Secundo, G., Massaro, M., Dumay, J., & Bagnoli, C. (2018). Intellectual capital management in the fourth stage of IC research: A critical case research in university settings. *Journal of*

Intellectual Capital, 19(1), 157–177. https://doi.org/10.1108/JIC-11-2016-0113

Sharabati, A. A., Jawad, S. N., & Bontis, N. (2010). Intellectual capital and business performance in the pharmaceutical sector of Jordan. *Management Decision*, 48(1), 105–131. https://doi.org/10.1108/00251741011014481

Spector, P. E. (1994). Job satisfaction survey.

- Tenenhaus, M., Vinzi, V. E., Chatelin, Y.-M., & Lauro, C. (2005). {PLS} path modeling. *Computational Statistics & Data Analysis*, 48(1), 159–205. https://doi.org/10.1016/j.csda.2004.03.005
- Todericiu, R., & Şerban, A. (2015). Intellectual Capital and its Relationship with Universities. *Procedia Economics and Finance*, 27(15), 713–717. https://doi.org/10.1016/S2212-5671(15)01052-7
- Tondeur, J., Van, B., Ertmer, P. A., & Ottenbreit. (2017). Understanding the relationship between teachers' pedagogical beliefs and technology use in education: a systematic review of qualitative evidence. *Educational Technology Research and Development*, 65(3), 555–575. https://doi.org/10.1007/s11423-016-9481-2
- Van Iddekinge, C. H., Aguinis, H., Mackey, J. D., & DeOrtentiis, P. S. (2018). A Meta-Analysis of the Interactive, Additive, and Relative Effects of Cognitive Ability and Motivation on Performance. *Journal of Management*, 44(1), 249–279. https://doi.org/10.1177/0149206317702220
- Wassertheil, S., & Cohen, J. (1970). Statistical Power Analysis for the Behavioral Sciences. *Biometrics*, 26(3), 588. https://doi.org/10.2307/2529115
- Wong, K. K. K.-K. (2013). Partial Least Squares Structural Equation Modeling (PLS-SEM) Techniques Using SmartPLS. *Marketing Bulletin*, 24(1), 1–32. https://doi.org/10.1108/EBR-10-2013-0128