



The Impact of Intellectual Capital on the Quality of Higher Education, by Using SEM Model, Case of Study : Faculty of Economic's of Bechar University

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Abstract :

This study aims to clarify the impact of intellectual capital in its three dimensions: human, structural and relational on the quality of higher education. These five most important dimensions, reliability, security, concreteness, responsiveness and empathy. to achieve this study based on a descriptive and analytical approach. The questionnaire is also used as the main means of data collection, which is distributed to a sample of 40 faculty members (permanent and temporary) at the Faculty of Economics, Business and Management at Tahri Mohammed University. 39 of them are collected and unloaded. Data via SPSS. The study achieved a set of results. The most important is that intellectual capital has a strong impact on the quality of higher education at the Faculty of Economics, Business and Management at Tahri Mohammed Bechar University, and that intellectual capital contributes to the development of the quality of education. But this result is still dependent on the college's willingness to maintain the type of human investment and to develop it through effective management in a way that helps design and implement an integrated strategic plan.

Key Words: Intellectual capital, Human capital, Structural capital, Relational capital, Quality of higher education.

JEL Classification: I23, J24.

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Introduction:

Intellectual capital is one of the most important new terms that has emerged in modern management, and most institutions in today's era are based on knowledge or intangible assets or so-called intellectual capital to generate value on the one hand, and provide high quality services that earn a high reputation and appreciation from all clients on the other hand. Higher education institutions (universities) are considered one of the most quality-sensitive service institutions, because their results are the first means of developing societies, and meeting the requirements of the labor market and the needs of society. In fact, the results of higher education



institutions (universities) are among the most quality-sensitive service institutions because their results are the first means of developing societies, and meeting the requirements of the labor market and the needs of society. Higher education suffers from major imbalances, including the low level of graduates and their lack of conformity with labor market requirements. So, universities must work to explore, build or attract intellectual capital according to their needs and contribute to the achievement of organizational goals because these assets have simply become the mainstay of all modern management strategies.

The problem of research:

Based on what has been put forward, the following problem can be formulated: "The impact of intellectual capital is reflected in enhancing the quality of higher education at Tahri Mohamed Bechar University?"

Through the problem, we ask the following questions:

- What is the reality of intellectual capital at Tahri Mohamed Bechar University?
- What is the quality of higher education at Tahri Mohamed Bechar University?
- What is the impact of intellectual capital on the quality of higher education from the point of view of the faculty of Tahri Mohamed Bechar University?

Study hypotheses:

- There is a statistically significant relationship between intellectual capital and the factors that it represents (human, structural, relations) among faculty members at Tahri Mohamed Bechar University.
- There is a statistically significant relationship between the quality of higher education and the factors it represents (reliability, safety, concrete, responsiveness and empathy) among faculty members at Tahri Mohamed Bechar University.
- Intellectual capital enhances the quality of higher education at the level of Tahri Mohamed Bechar University.
- There are statistically significant differences in the impact of intellectual capital on the quality of higher education at Tahri Mohamed Bechar University due to the gender variable .
- There are statistically significant differences in the impact of intellectual capital on the quality of higher education at Tahri Mohamed Bechar University due to the change in degree.

I. Theoretical rooting of intellectual capital and the quality of higher education:

Many researchers and economists have acknowledged the difficulty of finding a unified concept of intellectual capital, which is strategically located for the organization and its real wealth, at a time when organizations have become more accommodating and using knowledge on the one hand, and providing high quality services that earn a high reputation and appreciation from all customers on the other.



1. Intellectual capital:

The definitions of intellectual capital varied according to the views espoused by the researchers, some of whom knew them through the constituent elements of it and some of them knew it through its functions. From Hamel & Prahalad, 1994, it is "a distinct ability that outperforms competitors that achieves different skills and contributes to increasing the value offered to buyers" (Rusan & Ajlouni, 2010, page 43), and knows (Bontis, 1999) Intellectual capital as "a stock of knowledge that settles in the minds of workers as well as the knowledge-based vision of products, systems and structures" (Nihada Ismail and Ali Akram, 2010, p. 124). The OECD (OECD, 1999) defines it as "the economic value of two categories of intangible assets: organizational capital (structural) and human capital" (Graya and Bresch, 2011, p. 2). Hence, intellectual capital is a group of individuals who possess special mental and cognitive abilities, or a group of distinguished abilities, or knowledge production as a result of accumulated experiences. In any case, it is rare and not all organizations possess it.

2. Quality of higher education:

Quality of higher education can be defined by the extent to which the education system is able to meet the needs of the society of the workforce, in addition to contributing to the overall development of the members of the community (Saari Amar, 2012, page 990), and John Abbott points out that successful societies in the 21st century will be based on learning communities that conform to the ever-changing social and economic environmental needs (Yasya Salima, 2018, page 550). Some define high quality education as "the way colleges or colleges are considered to be in colleges or colleges" way. To the university organization as an ongoing quality series from the product to the consumer going through the same production processes, including all educational processes" (Hana Mahmoud al-Qaisi, 2011, p. 204), the best of these concepts is what was agreed at the UNESCO Education Conference in Paris in October 1998, which states that "quality in higher education is a multidimensional concept that should include all educational functions and activities such as teaching curricula, educational programs, scientific research, students, buildings, facilities and civil society, and the provision of services to the civil society, and the provision of services to the community, and the provision of services to the community. Internal self-education and setting comparative criteria for internationally recognized quality" (Al-Muti, 2015). This applies to education in general.

In addition to these concepts and practices, he has emerged in what is known as the international quality specifications ISO 9000, and is a reference framework that helps organizations to reach the required quality of products or services, as well as the evaluation of quality management systems by the customer or by the registration bodies and the granting of a certificate of conformity (Achouri Ibrahim, 2017-2016, p. 46). Hence, the quality of higher education is "a method within universities or colleges that views the university organization as a continuous quality chain starting from the producer to the consumer passing through the production processes themselves.



3. Previous studies:

The research survey and previous studies are one of the methodological stages in scientific research with the aim of identifying previous contributions in relation to the subject of research, and many studies have been explored on the subject of research. We will present the most important and latest available and mention edited:

- Jesus, Femando, & Gonzalo, 2019: "Perception of Academic Intellectual Capital: Definition and Suggestion of measurement. Conceptualizing academic intellectual capital: definition and proposal of a measurement scal:

This study aimed to identify the academic concepts of intellectual capital in its three dimensions (human capital, social capital, organizational capital) in Spanish universities, and to find the appropriate tool by which these dimensions can be measured, and after adjusting and modifying the questionnaire form, the researchers distributed 1798 forms by e-mail to a group of Spanish experts in various disciplines, where they were randomly selected, after analyzing the results using modeling by structural equations (SEM), the results of the study determined the measure to determine the measure that can be During the measurement of intellectual capital in Spanish universities, the level of the scientific team is a specific measure of human capital with its five elements (competence, knowledge, dynamic efforts, dynamic work, academic thinking) through which the quality of training, refinement of talent and the identification of possibilities, thus facilitating human resource development practices by encouraging the participation of team members in training and training, which drives the expansion of skills and knowledge, and this knowledge helps to build social capital with its three elements (social climate, internal relationships). The team, the external relations established by the team outside the unit) through cooperation in the working environment and allows the free flow of information and the construction of research networks, facilitating the creation of organizational capital with management teams and organizational culture.

- Yalanla, Elana, & Montserrat, 2019: "Study of Web Reports of Intellectual Capital by Examining the Intellectual Capital Web Reporting by Spanish University":

This study aimed to find out the opinions of stakeholders (faculty members, staff, students...) in Spanish universities about the reports provided by the administration on the evaluation of the quality of disclosure of intellectual capital in its three dimensions (human capital, structural capital, relationship capital) prevailing in The University collected study data from 50 Spanish state universities in 2016, where the study community is made up of the University's Board of Directors (Rector, Secretary-General, Heads of Scientific Councils) and external employees (students, trade unions, employees) Public administration, staff (faculty, researchers, administrative staff). The questionnaires were sent electronically to all 1,164 members of the social councils of Spanish public universities who were randomly selected, and 327 forms were retrieved,



equivalent to 28 percent of the total. Valid for study, regression analysis has been used to link the disclosure indicator to its specific factors.

The results of the study found that human capital was more exposed than structural and relationship capital, yet the quality of structural capital disclosure was higher than human and relationship capital. The study also found the impact of human capital and structural capital on the positive and negative changes taking place in Spanish universities, while the impact of relationship capital on these changes ,

- Arash, Abbas, & Akbar, 2018: "Identifying the variables of intellectual capital and its dimensions by approaching structural equations in education technology in Iran":

This study aimed to identify the factors and indicators of intellectual capital based on cost indicators in Iranian educational technology, to identify the factors that make up each dimension of the intellectual capital at the university (human capital, structural capital, relationship capital), and to try to build a suitable and applicable model for intellectual capital in educational technology in Iran. The sample of the study consisted of presidents, vice-presidents, teachers, administrators of educational centers, students and educational technology experts. After distributing questionnaires to 340 people, where the sample was randomly selected, 308 questionnaires were retrieved, excluding 8 forms, leaving the researchers with 300 viable forms for study. The researchers used modeling with structural equations (SEM) to analyze the results. The study found the factors that make up human capital (job satisfaction, human abilities and skills, functional competence, staff training level), and structural capital. It consists of three factors (factors for IT systems, factors for process systems, brand), and relationship capital consists of two factors (customer information, customer satisfaction), and the results of the study showed that the intellectual capital model in Iranian educational technology is appropriate and applied.

- Amjad, Fawad, Frederic, Umar, & Sadam, 2018: "From Knowledge Management to Organizational Performance: Modelling the Intermediate Role of Innovation and Intellectual Capital in Higher Education":

This study aimed to test the relationship between knowledge management and organizational performance in Pakistani universities, the role that intellectual capital plays in its dimensions (human capital, structural capital, relationship capital) and innovation as a mediator in promoting this relationship.

The sample of the study consisted of 325 faculty and administrators working in research universities of the State of Pakistan, where they were randomly selected, received the equivalent of 241 forms, 24 of which are invalid, to keep the researchers in the 217 or 67% valid for study, the researchers relied on modeling structural equations (SEM) to process and analyze data and reach the following results:

The first result: The relationship between knowledge management and organizational performance in Pakistani universities, where researchers identified factors through which knowledge-related activities, including leadership, culture,



and motivation, can be facilitated, as these factors positively affect knowledge acquisition and use processes .

Second conclusion: The effective implementation of knowledge management processes at research universities can lead to increased research productivity, student satisfaction, curriculum development and responsiveness.

The third result: knowledge management processes have a significant and positive impact on the components of intellectual capital (human, structural, relationship), as the components enhance the performance of the university.

- Benwaya and Musa, 2017: "Intellectual capital and its role in the activation and effectiveness of the university institution study the case of the Faculty of Economic and Business sciences and management sciences of the University of Tlemcen.:

This study aims to determine the nature of the intellectual capital at Abu Bakar Belkaid Tlemcen University, and tries to identify the methods and methods that the university relies on for the development of capabilities and possibilities all related to the intellectual capital in which it is located. The sample of the study was selected in a random way. The researchers received the equivalent of 95 forms, 10 of which are invalid, where the researchers remained 85 forms or 90% of the questionnaires valid for study. The researchers relied on the statistical program (SPSS) to process the data and analyze the data. The study concluded in the study Economic sciences of Abu Bakar Belkaid University in Tlemcen. That intellectual capital is the source of economic progress in general and the success of institutions in particular, where it is the main pillar for the achievement of university institutions their goals, the existence of an appropriate database that helps the institution to attract, manufacture and activate intellectual capital while working to maintain it and take care of students.

- Abu Rached, Ruswiati , & Jashodhan, 2017: "Determinants of student satisfaction in the context of higher education: the approach of modeling structural equations":

This study aims to look for the relationship between quality of service, program quality and student satisfaction in higher education, because most private universities in the Bangladeshi state are unable to support the quality of postgraduate studies. The study was initiated by the following two assumptions by the researchers: the first hypothesis: the quality of service is positively linked to the satisfaction of students. Second hypothesis: The quality of the programs is positively linked to student satisfaction. The target community in this study was 5,397 students in the final year of business administration from nine different private universities classified in the first grade. The equivalent of 450 students were selected as a sample for a study through systematic random sampling technique. The reason for selecting the sample in this way was to provide equal opportunities for study samples, and after distributing the questionnaire to the students participating in this study, the researchers recovered the equivalent of 334, and 30 forms were cancelled for incomplete information. The researchers used structural equation modelling (SEM) to analyze the data, and the study

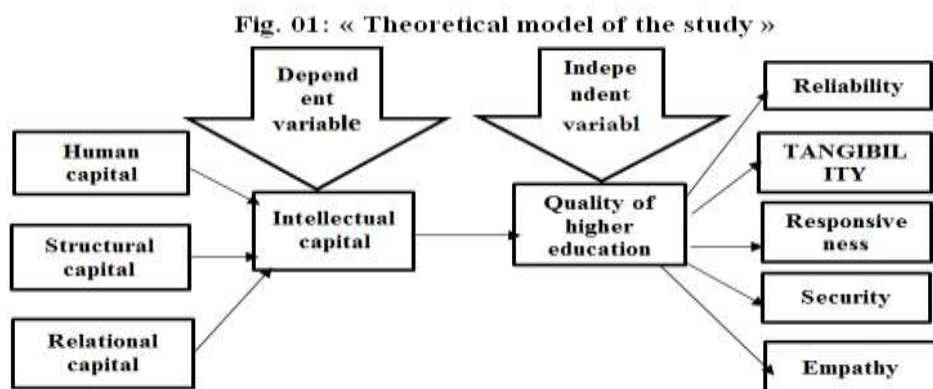


found that the quality of service and the quality of the programs had statistically significant relationships with student satisfaction. However, the study showed that the quality of the programs showed a significant variation in student satisfaction compared to the quality of the service. Consequently, the quality of the programs is more influential than the quality of service in student satisfaction, from which both the first and second assumptions are statistically supported.

Most previous studies have acknowledged the positive role of intellectual capital in promoting the quality of higher education, as intellectual capital has a key role in the development and development of the quality of higher education (Beniya and Musa, 2017), but the researchers did not agree on both the dimensions of intellectual capital and the quality of higher education. As for the relationship between the elements of intellectual capital and the quality of higher education, the researchers identified the factors through which knowledge-related activities, including leadership, culture, and incentives, can be facilitated, as these factors positively affect the processes of knowledge acquisition and use. (amjad, fawad , frederic, umar, & sadam, 2018).

II. Method and tools:

1. Study model: The theoretical model of the study can be illustrated as follows:



Source: Prepared by researchers

2. Study community:

The study community is made up of faculty members at Tahri Mohamed Bechar University of various ranks and who belong to the Faculty of Economics, Business sciences and management sciences, which number 88 faculty members, of whom 80 are permanent members and 8 are non-permanent .

The sample size was determined by taro Yamane equation by equation:

$$n = \left(\frac{N}{1 + N(e)^2} \right)$$



They represent: n: sample size; N: Community size; e: The level of accuracy is accepted in the current study 5% as a preview error.

$$\left(\frac{88}{1 + 88(0,05)^2} \right) = 72.13$$

Approximately 72.13 samples were sample disused, of which only 75 questionnaires were distributed, of which only 40 were recovered and 1 were excluded because they were invalid.

3. Study variables:

Based on theoretical and applied literature, the study variables were identified as follows:

- Dependent variable: the quality of the higher education service.
- Independent variable: intellectual capital.

4. Data collection method:

The questionnaire was used as a data collection tool, which is made up of three sections:

Section 1: Represents the intellectual capital variable and consists of three dimensions (human capital, structural capital and relationship capital).

Section 2: The quality variable of higher education consists of five dimensions (reliability, safety, concrete, responsiveness and empathy).

Section 3: Consists of questions relating to the personal data of the sample members of the study (sex, scientific qualification, seniority, scientific rank).

The five-year, graded Likert scale was used in accordance with previous studies, which is one of the most common measures in which the respondent is required to determine the degree of approval or disapproval of the specific options.

Table 01: « Answer Likert scale »

Classification	strongly Disapprove	Disapprove	Undecided	Approve	Strongly Approve
Class	] 1-1,8]	] 1,8-2,6]	] 2,6 -3,4]	] 2,6 -3,4]	] 4,2-5]

Source: Ezz Hussein Abdel Fattah, Introduction to Descriptive and Inference Statistics, Scientific Algorithm for Publishing and Distribution, Jeddah, Saudi Arabia, 2007, First Edition, p. 540.



III. Results and Discussion :

1. Analysis of sample characteristics:

Table 02: « Distribution of the study sample by personal data »

Variable	Type	Iteration	Percentage
Gender	Male	25	61.5%
	Female	15	38.5%
Scientific qualification	Ph.D. Science	26	66.7%
	Ph.D. Phase III	11	28.2%
	Master	02	5.1%
Seniority	Less than 05 years	14	35.9%
	05 to 10 years	15	38.5%
	More than 10 years	10	25.6%
Scientific rank	Professor A	18	46.2%
	Professor B Lecturer	7	17.9%
	Assistant Professor A	02	5.1%
	Interim Professor	12	8.2%
Total		39	100%

Source: Prepared by researchers based on 25Spss outputs

The table above shows that the highest percentage of respondents is male, and that the highest scientific qualification is a PhD, while the highest percentage of faculty members in the Faculty of Economics is male, of Commerce and Management Sciences of Tahri Mohammed Bechar University is between 05 and 10 years old, which is average and acceptable, which humiliates the existence of a professional balance and knowledge at the university that must be used, and the degree of Professor A Lecturer acquires the other scientific grades equivalent to 46.2%.

2. Resolution accuracy and stability:

Resolution stability is intended to give the same result if the resolution is redistributed more than once under the same conditions and circumstances, or in other words, resolution stability means the stability of the resolution results and not significantly changed if it is redistributed to sampled members repeatedly over certain periods of time and the researchers have verified the resolution stability of the study using the Alpha Cronbach coefficient.

**Table 03: « Cronbachs Alpha Coefficient for Measuring Stability»**

Declaration	Total number of sentences	Alpha Cronbach
Total number of paragraphs	6	0.963

Source: Prepared by researchers based on the 25Spss program

3. Investigate the direction of interviewers' opinions

Table 04: « Direction of Respondent Opinion »

Variables	Dimensions of the variables	Arithmetic average	Difference	The degree of approval
Intellectual capital	Human capital	3.54	0.70448	Okay
	Structural capital	3.31	0.59701	Neutral
	Relational capital	3.45	0.89013	Okay
	TOTAL	3.43	0.73054	Okay
Quality of higher education	Reliability	3.63	0.66601	Okay
	Concrete	2.70	0.95020	Okay
	Response	3.54	0.86769	Okay
	Security	3.74	0.60002	Okay
	Sympathy	3.71	0.53665	Okay
	Total	3.46	0.72411	Okay

Source: Prepared by researchers based on the 25Spss program

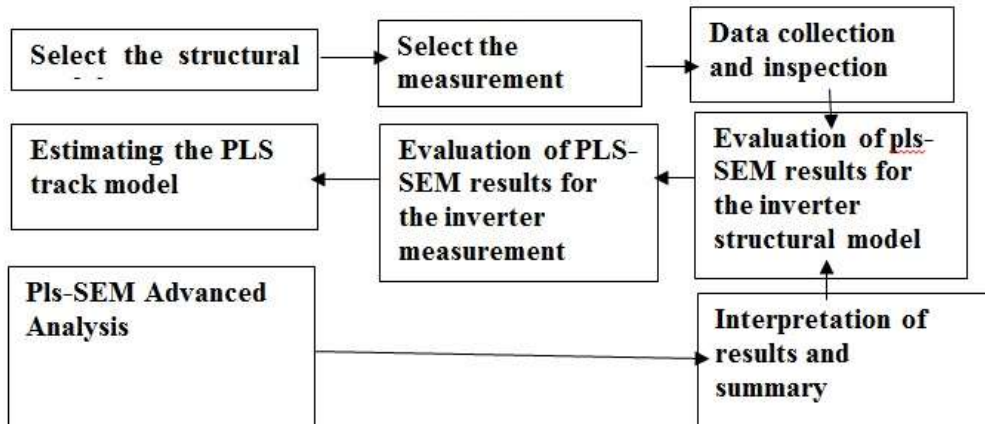
It is clear from the results in the table above that the trend of most of the respondents' responses was in line with the five-year Legart scale, and thus the Faculty of Economics and Business and Management at Tahri Mohamed Bechar University applies the dimensions of intellectual capital and quality of higher education to an acceptable degree, but the results for the value of the standard deviation exceeded 0.7, indicating that the orientation of respondents' opinions is heterogeneous and that the means of respondents' response orientation are incomplete and unspecified, and the value of its standard deviation from respondents' opinions on the following dimensions. : Recognition of potential reliability (0.666), Concrete (0.950) and response (0.867), Safety (0.600), Empathy (0. 536), most of which dimensions exceeded the standard deviation value of 0.7, meaning that descriptive statistical measures are not able to describe respondent trends in the extent to which certain dimensions of the study variables are applied, which leads us to think of more explained statistical tools, and we have chosen to use structural equations because of the nature of the underlying variables selected for the study, and to address the research problem, we are using a more precise and in-depth analysis through the Exploratory and Confirmatory Analysis (PLS analysis).



3. Analysis and study of results:

There are several statistical tools available for analyzing the information achieved, where the structural equation method is one of the most appropriate and effective ways to deal with this type of relationship. The steps in applying the modeling methodology are PLS-SEM:(Hair, et al., 2016, p. 53).

Fig. 02: « Steps In The Application Of The PLS-SEM Methodology »



Source: (Hair, et al., 2016, p. P 53)

3.1 Evaluation of the measurement evaluation model:

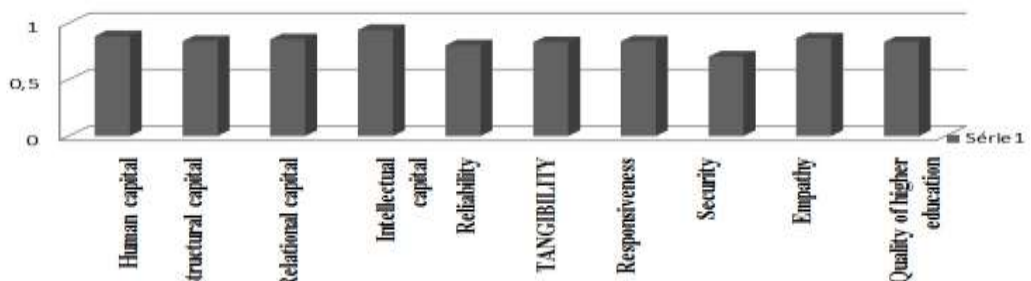
The quality of the model in smart PLS is evaluated by the convergence and compatibility of its elements: the first is convergent validity and the second is discriminatory honesty (Discreminate Validity).

3.2. Convergent validity :

Convergent validity is the convergence and compatibility of questions with each other. Based on Hair et al. 2010 (Guthrie, page 91), the criteria for assessing convergent honesty are: composite reliability (CR), extracted mean variation (EV), load factor (LF).

Before verifying convergence honesty, we test the reliability of internal consistency against the traditional alpha Cronbach standard, and the Rho De Joreskog standard, which is more accurate than Cronbachs Alpha

Fig. 03: « Cronbachs alpha values for the variables (Cronbachs alpha) »

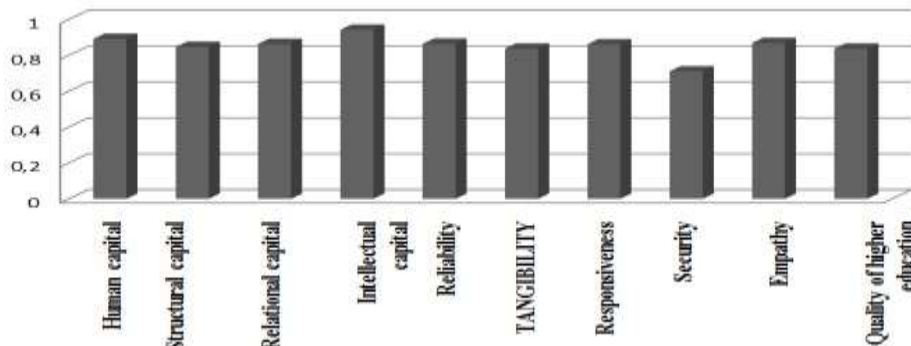


Source: By researchers using Excel



From the above figure, we note that most Cronbach's alpha coefficients are morally and statistically acceptable because their values are greater than 0.70 and this corresponds to the composite reliability index.

Fig. 04: « Rho De Joreskog Laboratory »



Source: By researchers using Excel

We use the Rho De Joreskog standard, which is more precise than the Alpha Cronbach coefficient, because it integrates in its calculation the errors of Roussel et al.2012, and Figure 4 shows Rho De Joreskog coefficients of underlying variables: all moral and statistically acceptable because they are greater than 0.70 according to Fornell& Lacker 1981 (Gothy, 2018, page 76)

Table 5: « Healthy Convergence »

Axis	Questions	Loadings/ Download indicators	AVE/ Averages of interpreted variations	CR/ Composite reliability
Human capital	HC1	0.729	0.639	0.913
	HC2	0.738		
	HC3	0.857		
	HC4	0.892		
	HC5	0.764		
	HC6	0.809		
Structural capital	SC1	0.791	0.682	0.895
	SC2	0.719		
	SC3	0.809		
	SC4	0.781		
Relational capital	RC1	0.870	0.637	0.897
	RC2	0.797		
	RC3	0.702		
	RC4	0.849		
	RC5	0.761		
Reliability	RE1	0.828	0.747	0.899
	RE2	0.900		
	RE3	0.864		



Tangibility	TA1	0.900	0.720	0.884
	TA2	0.930		
	TA3	0.700		
Responsiveness	RS1	0.888	0.759	0.904
	RS2	0.937		
	RS3	0.781		
Security	SA1	0.794	0.902	0.648
	SA2	0.834		
	SA3	0.794		
	SA4	0.810		
	SA5	0.792		
Empathy	EM1	0.719	0.630	0.899
	EM2	0.857		
	EM3	0.799		

Source: Prepared by researchers based on smart PLS3 outputs.

From the above table, we note that all the index load value coefficients (questions) on their factors (dimensions) exceed 0.70 as well as all the averages of the interpreted variations above 0.50 and that all the composite reliability values exceed 0.50 from which we conclude the authenticity of the convergence of the measurement model.

4. Discriminatory honesty (Discreminate Validity):

Dimensional interference with each other: We measure the difference between dimensions, and the value of the relationship between the dimension and itself must be greater than that of the relationship with the other, and say that the dimensions are independent according to the standard of the Fornell-Larcker criterion).

Table 6: « Fornell-Larcker Criteria) »

	Human capital	Structural capital	Relational capital	Reliability	Tangibility	Responsiveness	Security	Empathy
Human capital	0.799							
Structural capital	0.796	0.783						
Relational capital	0.517	0.716	0.798					
Reliability	0.721	0.549	0.675	0.865				
Tangibility	0.691	0.631	0.610	0.547	0.849			
Responsiveness	0.553	0.679	0.754	0.811	0.686	0.871		
Security	0.776	0.610	0.637	0.665	0.439	0.690	0.805	
Empathy	0.794	0.623	0.517	0.357	0.357	0.553	0.776	0.794

Source: Prepared by researchers based on smart PLS3 outputs



It should be noted from the above table that the square walls of the interpreted mean contrast (AVE) that represent the values that link each underlying variable itself are greater than the value of the association with other variables and thus confirm the true differentiation of the dimensions of the measurement model

4.1. Cross loading: We verify that questions that measure one underlying variable do not measure another underlying variable, by having the value of the relationship between the question and its underlying variable greater than its relationship to another underlying variable, and thus saying that the questions are independent.

Table 7: « Cross Loading »

	Human capital	Structural capital	Relational capital	Reliability	Tangibility	Responsiveness	Security	Empathy
HC1	0.729	0.530	0.615	0.432	0.482	0.378	0.455	0.204
HC2	0.740	0.583	0.637	0.723	0.432	0.709	0.537	0.369
HC3	0.852	0.485	0.586	0.694	0.475	0.605	0.646	0.330
HC4	0.891	0.715	0.749	0.508	0.688	0.618	0.674	0.480
HC5	0.762	0.552	0.645	0.510	0.641	0.511	0.490	0.420
HC6	0.808	0.363	0.563	0.605	0.572	0.647	0.615	0.468
SC1	0.400	0.771	0.607	0.418	0.233	0.344	0.398	0.532
SC2	0.415	0.887	0.639	0.307	0.445	0.431	0.480	0.490
SC3	0.589	0.814	0.642	0.601	0.706	0.684	0.498	0.432
SC4	0.396	0.700	0.510	0.435	0.355	0.464	0.475	0.592
RC1	0.572	0.667	0.869	0.367	0.452	0.522	0.482	0.364
RC2	0.554	0.658	0.796	0.362	0.480	0.502	0.492	0.390
RC3	0.437	0.590	0.699	0.605	0.352	0.563	0.340	0.488
RC4	0.786	0.649	0.852	0.662	0.514	0.748	0.643	0.444
RC5	0.772	0.686	0.763	0.683	0.312	0.582	0.552	0.394
RE1	0.539	0.469	0.587	0.828	0.386	0.638	0.453	0.420
RE2	0.733	0.417	0.545	0.900	0.563	0.725	0.650	0.374
RE3	0.586	0.541	0.623	0.864	0.458	0.736	0.607	0.438
TA1	0.613	0.580	0.499	0.398	0.900	0.589	0.402	0.408
TA2	0.727	0.682	0.637	0.546	0.930	0.651	0.479	0.356
TA3	0.350	0.256	0.382	0.463	0.697	0.501	0.175	0.073
RS1	0.723	0.743	0.822	0.693	0.670	0.887	0.671	0.520
RS2	0.671	0.628	0.655	0.768	0.561	0.937	0.689	0.551
RS3	0.473	0.360	0.463	0.659	0.566	0.781	0.408	0.352
SA1	0.598	0.300	0.423	0.643	0.471	0.641	0.794	0.439
SA2	0.588	0.450	0.503	0.511	0.292	0.492	0.834	0.702
SA3	0.441	0.450	0.353	0.439	0.094	0.426	0.794	0.711
SA4	0.650	0.560	0.522	0.376	0.280	0.457	0.810	0.511
SA5	0.593	0.672	0.712	0.653	0.555	0.706	0.792	0.744
EM1	0.540	0.298	0.304	0.279	0.207	0.323	0.540	0.719
EM2	0.331	0.581	0.565	0.516	0.312	0.582	0.516	0.857
EM3	0.264	0.602	0.339	0.311	0.330	0.393	0.504	0.799

Source: Prepared by researchers based on smart PLS3 outputs

It is noted in the table that most of the reliability coefficients for questions related to their axis are higher than those associated with the rest of the axes, indicating the sincerity of the differentiation in the measurement model.

Source: Prepared by researchers based on smart PLS3 outputs

4.2. Evaluation of the structural model

a. Path and Hypothesis Testing: Relational estimates are obtained for the structural model (path coefficients), which represents the assumed relationships between constructions. The relationship is moral and statistically significant when the error rate (P-value) is less than 5% (Hair, et al., 2016, p. 206).

Table 8: « Path coefficients »

Assumptions Form	Relation	Std BETA	Std Error	Value T	Value P	Resolution
H1	Intellectual capital Vs. Quality of higher education	0.850	0.059	14.332	0.000	Positive relationship And Strong.

Source: Prepared by researchers based on smart PLS3 outputs

From the table above, we note that the hypothesis of an impact of intellectual capital on the quality of higher education is acceptable because the value of P is less than 5%.

b. R-square: The most common measure of structural model evaluation is R^2 , which is a measure of the predictive power of the model and is calculated as the correlation between the actual and predictive values of the internal construction (Gothy, 2018, p. 89).

Table 9: « Coefficient of Determination »

Axis	R ²	Result
Quality of higher education	0.722	Strong

Source: Prepared by researchers based on smart PLS3 outputs



Through the table, we note that the capacity of intellectual capital to explain the quality of higher education at the Faculty of Economics, Business and Management at Taheri Mohammed Bechar University is higher than 0.67 (chin, 1998), as intellectual capital explains 72.2% of the quality of higher education, which indicates the quality of the model.

c. The quality of the student Q^2 : This measure is an indicator of predictability outside the sample model or its predictive importance (Gothy, 2018, page 94).

Table 10: « Predictive Relevance Q^2 »

Axis	R^2	Result
Quality of higher education	0.305	Acceptable

Source: Smart Pls Outputs

hroughout the table, we note that the model is predictive when $Q^2 = 0.305$ is an acceptable value to be greater than 0.

- Goodness of Fit: GOF measures the reliability of the study model, i.e. shows the overall performance of the model (Hair, et al., 2016, p. 309).

This value is calculated in the following relationship:

$$GOF = \sqrt{R^2 * AVE}$$

$$GOF = \sqrt{0.723 * 0.648}$$

$$GOF = 0.648$$

We note from the equation that the value of the GOF is estimated to be 0.648, i.e., the model is very appropriate for the study because the value is greater than 0.36.

Conclusion:

The results of this study the impact of intellectual capital on the quality of higher education indicated a strong and positive correlation estimated at about 72.2% between intellectual capital and the quality of higher education at the Faculty of Economics, Business and Management Sciences at Taheri Mohammed Bechar University, and that intellectual capital contributes to the development of the quality of education, but the outcome remains dependent on the College's willingness to maintain the type of human investment and to try to develop it through its management in an effective way to help design and implement an integrated strategic plan, as the data analysis showed no difference. Statistically significant in the impact of intellectual capital on the quality of higher education among faculty members of the Faculty of Economics and Business Sciences and Management Taheri Mohammed Bashar University due to personal variables (gender and degree).

In light of the above and the positive impact of intellectual capital on the quality of higher education, the following suggestions and recommendations can be made:

- Create a climate conducive to the retention and retention of distinguished faculty members through valuable scientific and academic research and to provide



material incentives for creativity and innovation that contribute to the development and expansion of educational quality.

- Develop human capital through training and education and to support individual initiative, which contributes to outstanding performance and thus educational skills.

- Activate an organizational structure that contributes to improving intellectual capital by supporting and strengthening communication among faculty members .

- The need to establish a climate of trust among faculty members within college departments and then to move to higher levels and thus increase the level of education.

- Work on the development of educational programs through the experiences of certain countries that stand out for their educational quality .

- Build a solid and distinguished database that contributes to enriching the balance of knowledge of the training team, which contributes to raising the level of education.

- Adapt specialties to the requirements of the market and society and provide an environment conducive to confidence and creativity.

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