Assessing Strategic Business and IT Alignment: Validation of a Novel Model across Moroccan Enterprises

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Abstract: - Strategic alignment between Business and IT remains a critical factor for organizational effectiveness, but measuring it often presents a complex challenge. This paper evaluates the model we proposed in previous work to measure the degree of alignment between Business strategy and IT initiatives. We applied the model to a selection of Moroccan companies. We compared the alignment scores obtained with those from the established Strategic Alignment Maturity Model (SAMM) using Cohen's Kappa and simple linear regression for comparative analysis. This study demonstrates our model's effectiveness in evaluating continuous scores and provides substantial concordance in categorical maturity assessments. Our validation confirms that our model can apply to various business contexts, paving the way for further refinement to evaluate business-IT alignment strategies.

Key-Words: - Business-IT alignment, strategic alignment, Business strategy, IT strategy, strategic alignment, business performance, strategic alignment maturity.

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1 Introduction

Since the 1980s, Business and IT alignment has been a significant topic of concern. In our current digital environment, the need for this alignment is imperative. Raza Ur Rehman Qazi, in his 2018 study, notes that companies that fail to align their Business strategies and infrastructures with technological advancements tend to struggle, [1]. Tarafdar and colleagues, in 2020, highlighted the importance of IT alignment for organizations' abilities to innovate and adapt in the digital age, [2]. The IBM Global CEO Study of CEOs explains that companies have to deal with a gap in integrating Business and technology, which could lead to lower customer satisfaction, slower adaptation speed, and less process flexibility.

Following Gao and Sarwar, we argue that a lack of strategic alignment is the primary reason for these failures, where managers need to leverage the alignment of vision, mission, and objectives with the information systems, [3]. Strategic alignment is about harmonizing information system strategies with Business strategies, [4], [5], to serve productivity, performance, and success, [6], [7], [8]. This should be management's top priority, and we strive to find its potential antecedents, which subsequently facilitate greater competitiveness, [9], and performance, [10].

The importance of strategic alignment is well established. Still, there is a need for up-to-date instruments tailored explicitly for measuring business-IT alignment in the context of contemporary challenges. A recent review by Martinez and Turner, in 2021, illustrates this gap, noting the changes in the Business environment due to the rise of artificial intelligence, machine learning, and other advanced technologies, [11].

In the literature, many approaches have been proposed to address strategic alignment. For instance, in requirement engineering, there is a push to represent the organization's strategic orientations, objectives, activities, and the process used to achieve these objectives in the same model. Frameworks like B-SCP, [12], Zachman, and TOGAF, [13], while valuable, do not offer a dedicated methodology to formalize strategic alignment, which would support systematic reasoning about the synergy between organizations' strategies and IT, [14].

Our proposed model, [15], addresses this gap by explicitly focusing on the synergy between Business and IT strategies, offering a more structured and comprehensive framework for measuring the strategic alignment in organizations.

This paper aims to validate our model, based on the strategic frameworks of Miles and Snow, [16],

[17]. We employ a comprehensive questionnaire disseminated among leading Moroccan companies to test our model. The goal is to evaluate the alignment between IT and Business. By comparing our results with the Strategic Alignment Maturity (SAMM) framework, inspired by Henderson and Venkatraman's SAM model, [18], we add depth to our analysis. The SAMM framework includes five levels of strategic alignment maturity and six maturity factors, [19]. Our study seeks to support the hypothesis that a mature strategic alignment arises from the parallel alignment of Business and IT orientations. We use Cohen's Kappa and linear regression analysis as our verification methods to confirm this hypothesis.

2 Theoretical Background

2.1 Business-IT Alignment

A large number of researchers have proposed various concepts related to strategic alignment. Achieving alignment requires an ongoing effort of strategic planning, goal realignment, and implementation of best practices in supporting and shaping Business strategies. Through strategic alignment, the aim of IT now is not only to improve efficiency but also to improve Business effectiveness and manage organizations more strategically.

The importance of alignment has been widely recognized and well documented; however, many companies still need to be aligned. This is due to the need for a practical model to identify the degree of alignment and how to maintain it.

Luftman and BRIER propose a framework to measure the strategic alignment maturity, [20], based on the model SAM. This model provides a tool to evaluate the maturity of their strategic choices and alignment activities and identify areas where they can achieve a higher level of alignment, [18].

In [21], it is created an instrument to measure the maturity of business-IT alignment based on SAM. They use the six categories in Table 1 (Appendix), which contains 39 items, for assessing alignment. For each item, the manager answers five choice scales, representing a different level of maturity. An answer of one indicated the lowest level of maturity, and an answer of five showed the highest.

Depending on how an organization scores the components of each factor, one of the five levels of strategic alignment maturity is assigned to the organization. The five process levels are:

1) Initial/Ad Hoc Process – Business and IT are not aligned or harmonized;
2) Committed Process – the organization has committed to becoming aligned;
3) Established Focused Process – Strategic Alignment Maturity established and focused on Business objectives;
4) Improved/Managed Process – Reinforcing the concept of IT as a Value Centre;
5) Optimized Process – Integrated and co-adaptive Business and IT strategic planning.

2.2 Proposed Model

Our study adopted the Miles and Snow typology for categorizing organizational strategies into distinct types. Although traditionally, this typology includes four categories—Prospector, Defender, Analyzer, and Reactor, we have chosen to focus on three: Prospector, Defender, and Reactor. We have made this decision because the Analyzer category represents a blend of Prospector and Defender characteristics, which could potentially obscure the distinct impacts of each strategy on IT alignment. Excluding the Analyzer ensures a more precise and robust analysis.

Prospectors are characterized by their innovation and pursuit of new market opportunities. Defenders focus on operational efficiency and market share protection. Reactors, by contrast, lack a consistent strategic orientation, reacting to external pressures rather than following a proactive strategy.

In our previous research, we developed distinct metrics for each strategy type, [15]. For the Business prospector strategy, we focus on exploring new opportunities, market position over immediate profitability, and reducing prices to gain market share. The defender strategy emphasizes stability, control, and quality improvement. Reactor strategy metrics concentrate on cost efficiency and market responsiveness; they include protecting market share by adjusting product quality and pricing and investing in new technologies to keep up with market trends. These customized metrics showed how each strategy type has a different approach.

We developed distinct metrics for each IT strategy type, [15]. The IT Prospector strategy, driven by innovation and market dominance, identified indicators like using competitive intelligence systems, employing IT for marketing and promotions, and relying on IT to manage customer feedback and service delivery. For the IT Defender strategy, the metrics include using IT to optimize Business processes and support R&D. Finally, the IT Reactor strategy, emphasizes agility

and cost-efficiency, leverages IT to safeguard market share, track market trends, and cut production and market costs. These metrics complement those established for the Business strategy types, offering a comprehensive view of strategic alignment as presented in Figure 1.

Fig. 1: Representation of Business and IT strategy according to Miles and Snow, [15]

We used a comprehensive questionnaire completed by IT and Business management representatives within the organizations to measure the alignment between IT and Business strategies. Responses were based on a 1 to 9 scale, with 1 representing equal importance, indicating that both factors contribute equally to the objective, and 9 representing extreme importance of one activity over the other, [15].

This approach produced two distinct matrices, which specifically reflect the perspectives of IT and Business see Table 2 (Appendix). By employing the Analytic Hierarchy Process (AHP) method, [22], we normalized the data within these matrices, deriving a priority vector for each strategy. The extent of alignment is then determined by assessing the congruence between these vectors, effectively quantifying the degree to which IT and Business strategies are synchronized.

VB= $\begin{pmatrix} x_{p1} \\ x_{p2} \\ x_{p3} \\ x_{d1} \\ x_{d2} \\ x_{d3} \\ x_{r1} \\ x_{r2} \\ x_{r3} \end{pmatrix}$ is the Business matrix priority

And VIT= $\begin{pmatrix} y_{p1} \\ y_{p2} \\ y_{p3} \\ y_{d1} \\ y_{d2} \\ y_{d3} \\ y_{r1} \\ y_{r2} \\ y_{r3} \end{pmatrix}$ is the IT matrix priority.

Alignment is measured using the formula K, as detailed in our previous work, [15], which calculates the difference between the Business and IT strategy priority matrices. A perfect alignment of 100% is indicated when VB and VIT are equal.

$$K= 100-[(x_{p1}+ x_{p2}+ x_{p3}) - (y_{p1}+ y_{p2}+ y_{p3}) + (x_{d1}+ x_{d2}+ x_{d3}) - (y_{d1}+ y_{d2}+ y_{d3})) + (x_{r1}+ x_{r2}+ x_{r3}) - (y_{r1}+ y_{r2}+ y_{r3})]. \quad (1)$$

3 Validation of the Proposal Model

To ensure the reliability and applicability of our model, [15], we tested it on 13 Moroccan companies. These same companies had previously been assessed using the SAMM model, as presented in [19]. This choice was deliberate; the SAMM model is widely recognized in strategic alignment and serves as a comparison benchmark. After obtaining the results from both models, we did a comprehensive statistical analysis. We utilized correlation analysis to ascertain the linear relationship between our model's outcomes and those from the SAMM model. To further substantiate the validity of our findings, we also applied Cohen's Kappa coefficient, which provided an additional layer of validation by measuring the level of agreement between the categorical assessments of both models.

3.1 IT Issues in Morocco

Morocco's economy is on the upswing, prompting companies to invest more in technology. This investment aims to make tasks easier and help employees work more efficiently. However, many managers, especially in the industrial production sectors, still need to give it the importance it deserves. They may need to recognize the potential benefits technology fully can bring to their Business, how to structure their IT teams effectively, or how to maximize the return on their tech investments.

Yet, it is clear that things are changing. Instead of just sticking to basic computer tasks, many

Moroccan businesses are venturing into advanced systems. They are exploring tools like ERP, which helps manage different parts of a Business, and new methods to keep track of their products and deliveries, known as supply chain management. Nevertheless, these tools are not plug-and-play; they need proper setup and maintenance. It means the IT department has to collaborate with other teams in the Business more than ever before.

This trend emphasizes the need for a strong partnership between tech experts and other departments in a company. As Businesses in Morocco continue to evolve, having everyone on the same page will ensure they get the most out of their tech investments.

3.2 Instrument Used

A comprehensive survey was administered to 39 executives, spanning IT and Business roles, from 26 distinct Business units within 13 companies. The survey consisted of two separate questionnaires: one designed for IT and the other for Business strategy. Each executive was tasked with expressing their preference between two options using a nine-point scale, [15].

To guarantee the accuracy and relevance of the questionnaire content, it was critically examined by two scholars specializing in business-IT alignment. Their insights were solicited for potential augmentations, omissions, or adjustments to the content. Based on their feedback, minor alterations were made. Subsequently, a pilot test of the questionnaire was conducted to ensure its clarity and comprehensibility.

3.3 Data Collection

Thirteen Moroccan companies participated in our study, offering a diverse snapshot of the nation's industrial landscape. Participants included the country's primary telecommunication operator, the national railway and highway companies, and the official post office. Additionally, the study encompassed three manufacturing entities and six enterprises from the financial, insurance, and service sectors, further details of which can be found in Table 3.

These companies vary significantly in size. The most prominent employed approximately 9,000 people, while the smallest employed about 500. It is important to note that five of the thirteen were publicly traded companies. With total revenues ranging from an astounding 6.5 billion Dirhams to 1.2 million Dirhams, their financial imprint was as varied. This range emphasizes the diverse scale and size of the study's entities and offers a comprehensive view of IT and business alignment across Morocco's different industries and firm sizes.

Table 3. Interviewed companies

Company	**Area of operation**
Souriau Esterline	Connection technology producer
Maroc Telecom	Telecommunication operator
ONCF	Moroccan railway company
Sofac	Credit institution
Capgemini	IT service company
Barid Al Maghrib	Letters and parcel delivery company
Nexans	Manufacture of industrial wires and cables and fiber optic cables
Metallurgy anonym	A company in the metallurgy sector which preferred to remain anonymous
SGMB	Bank
RMA Assurance	Insurance company
GROUPE AFMA	Insurance broker
ADM	National company in charge of building, maintaining and operating the motorway network
A-SIS	Publisher and integrator of complete solutions for logistics

The questionnaire was given to managers through Google Forms. After gathering all the responses, we structured and processed the data using the Analytic Hierarchy Process (AHP) technique [22]. We determined the Business and IT direction vectors for every participating organization. The degree of alignment, as shown in Table 4, varied from 4% to 77%. This considerable variation indicates that many Moroccan businesses have a big chance to improve alignment. Prioritizing this alignment will help the Business reach.

We utilized the SAMM assessment tools to confirm the validity and reliability of our model and its capacity to yield a precise alignment measure. These tools are based on best practices for strategic alignment between IT and business, derived from extensive literature examinations carried out by academic experts, [23]. Table 5 (Appendix) provides the alignment maturity levels of the participating companies as evaluated using the SAMM tools. This comparative analysis provides a clear benchmark, ensuring that the results of our model correspond with accepted practices.

Table 4. Alignment degree using the Benkhayat model

Compagnie	Alignment degree
Souriau Esterline	12%
Maroc Telecom	21%
ONCF	4%
Sofac	5%
Capgemini	62%
Barid Al Maghrib	23%
Nexans	71%
Metallurgie	59%
SGMB	13%
RMA Assurance	76%
GROUPE AFMA	22%
ADM	77%
A-SIS	45%

Based on this evaluation, the degree of alignment maturity ranges from level 2 to level 4. In all SAMM model categories, companies scored at level three on average. This suggests that most organizations that participated in the survey have a well-established alignment procedure that closely corresponds with their business objectives. We used the following formula to get the percentage representation for each level:

$$P=Level*100/5 \quad (2)$$

3.4 Data Analysis

3.4.1 Analysis using Linear Regression

We employed a simple linear regression analysis to cross-validate the degree of alignment determined by our model. Linear regression was selected for its simplicity and effectiveness in clarifying the relationship between variables. This analytical approach facilitates quantifying the strength and nature of the correlation between the results of our model and the SAMM model's 'P' values. A significant correlation between the two would validate the efficacy of our instrument. Our regression analysis yielded an R^2 value of 0.787, which is statistically significant with a p-value less than 0.01 (refer to Table 7 for details). The derived regression equation from this analysis (details in Table 6) is as follows:

Benkhayat Model[t] = -0.460831 + 1.54919SAMM[t] + e[t]

Table 6. Multiple Linear Regression - Ordinary Least Squares

Variable	Parameter	S.D.	T-STAT H0: parameter = 0	2-tail p-value	1-tail p-value
(Intercept)	-0.4608	0.1475	-3.1240e+00	0.009674	0.004837
SAMM	+1.549	0.2626	+5.8990e+00	0.000103	5.165e-05

Table 7. Multiple Linear Regression - Regression and Residual Statistics

Multiple Linear Regression - Regression Statistics	
Multiple R	0.8717
R-squared	0.7598
Adjusted R-squared	0.738
F-TEST (value)	34.8
F-TEST (DF numerator)	1
F-TEST (DF denominator)	11
p-value	0.0001033
Multiple Linear Regression - Residual Statistics	
Residual Standard Deviation	0.1435
Sum Squared Residuals	0.2266

The computed value of R stands at 0.8717. Based on Pearson's correlation coefficient interpretation, this denotes a strong positive correlation. In practical terms, this suggests that when our model indicates a high degree of alignment, it is likely that the SAMM model will also show a high degree of alignment maturity, and vice versa.

Furthermore, the R^2 value, which represents the coefficient of determination, is 0.7598. This implies that our model can explain approximately 75.98% of the variation in the SAMM alignment maturity. Essentially, this means that our model can largely predict the outcomes of the SAMM model.

3.4.2 Analysis using Cohen's Kappa

To further validate and crosscheck the results of our model, beyond the insights provided by the simple linear regression, we incorporated Cohen's Kappa methodology. This statistical technique is renowned for quantifying the degree of agreement between two raters or classifications, making it apt to compare our model (the Benkhayat Model), [15], and the established SAMM model.

Harmonizing the Models:
Given the SAMM model's inherent 5-level structure, we needed to recalibrate the Benkhayat Model, [10], to a comparable format. Accordingly, we demarcated five levels based on percentage scores:

- Level 1 (0-20%)
- Level 2 (21-40%)
- Level 3 (41-60%)
- Level 4 (61-80%)
- Level 5 (81-100%)

Following this alignment, the comparative data for both models is presented in Table 8:

Table 8. Alignment Level Comparisons between Benkhayat and SAMM Model

Compagnie	Benkhayat Model	SAMM Model
Souriau Esterline	**Level 1**	**Level 2**
Maroc Telecom	**Level 2**	**Level 3**
ONCF	**Level 1**	**Level 1**
Sofac	**Level 1**	**Level 2**
Capgemini	**Level 4**	**Level 4**
Barid Al Maghrib	**Level 2**	**Level 2**
Nexans	**Level 4**	**Level 4**
Metallurgie	**Level 3**	**Level 3**
SGMB	**Level 2**	**Level 2**
RMA Assurance	**Level 4**	**Level 4**
GROUPE AFMA	**Level 2**	**Level 2**
ADM	**Level 4**	**Level 4**
a-SIS	**Level 3**	**Level 3**

Cohen's Kappa Calculation:
The foundation of Cohen's Kappa involves two principal probabilities:

- $\mathbf{p_o}$: Observed Proportion of Agreement: This is the actual frequency of agreement observed between the two models. In our dataset, 8 out of 13 companies had a consensus between both models, giving us the following:

  $\mathbf{p_o = 8/13}$ **or roughly 0.6154**

- $\mathbf{p_e}$: Expected Proportion of Agreement by Chance: This denotes the likelihood of random agreement. A 4x4 contingency table aids in determining this, factoring in the frequency distribution of the two model's classifications.

Table 9. Frequency Distribution for the Benkhayat and SAMM Model Classifications

Level	Benkhayat Model	SAMM Model	Product of Frequencies
1	3	2	3 * 2 = 6
2	5	5	5 * 5 = 25
3	2	2	2 *2 = 4
4	3	4	3 * 4 = 12

Summing the products of the frequencies (see Table 9) provides an expected agreement of 47. When normalized by the total number of companies, the expected agreement is 47/ (13*13) =47/169

$$\mathbf{p_e \approx 0.2781}$$

Now, using the formula for KAPA

$$\mathbf{K = (p_o - p_e)/(1 - p_e)} \quad (3)$$

This calculation yields a Kappa value close to 0.468.

Interpretation:
A Kappa value of 0.468 suggests a moderate agreement between the Benkhayat Model, [15] and the SAMM Model. This indicates that the two models often concur on the alignment level of a company, but discrepancies exist. This moderate agreement suggests that while both models aim to measure alignment, they prioritize or weigh specific criteria differently.

4 Discussion

Our analysis indicated that the proposed model has strengths and opportunities for improvement.

The regression analysis showed that our model is good at predicting continuous scores, similar to SAMM. However, transitioning from continuous scores to maturity levels presents difficulties. The application of Cohen's Kappa analysis revealed a moderate agreement between our model and SAMM, highlighting the essential requirement to examine the criteria and thresholds used in grading maturity. This brings us back to the question of the classification used: is it too strict or too lenient? On the other hand, our model could ignore essential SAMM criteria.

Ultimately, the benchmarks or standards employed in our model to classify maturity levels should be revised to refine the proposed model. A comprehensive review of industry standards and regular stakeholder feedback can improve the reflection of our model of real-world scenarios.

A thorough examination of SAMM and maybe other models can also help to understand the

complexity of the classification and achieve better harmony. This implicates the establishment of new criteria, whether included or not in SAMM.

Considering the dynamic nature of strategic alignment, our model should be flexible to pursue future industry changes and market trends. Regular updates to our model may also guarantee its ongoing relevance.

5 Conclusion

Our model is based on a matrix representation of Business and IT strategies. To determine the alignment, we suggest comparing the priority vectors within these matrices. The degree of alignment is equal to the difference between these two priority matrices.

The model applies to many industries, making it a valuable tool for any firm seeking to evaluate the alignment between their business and IT strategies. Our real-world case studies confirmed this.

The application and validation of our model produced informative results. It showed remarkable accuracy in continuous alignment scores, closely matching the SAMM model's criteria. This performance underlines the model's strong capability in evaluating alignment from a straight metric perspective.

However, after moving to assess discrete maturity levels, specific differences occurred. The moderate agreement found in Cohen's Kappa analysis highlights the differences between our model and the SAMM model when interpreting and categorizing alignment maturity. These variances highlight further areas for improvement, emphasizing the significance of continuously evaluating our model's parameters for maturity level categorization.

Looking ahead, we intend to include additional factors that may influence the company's performance, such as the market tendency, the workforce, or other parameters. Our adventure has only begun, and we are excited to refine and expand this tool to unlock the full potential of efficient strategic alignment across varied industries.

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Contribution of Individual Authors to the Creation of a Scientific Article (Ghostwriting Policy)

The author contributed in the present research, at all stages from the formulation of the problem to the final findings and solution.

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Conflict of Interest

The author has no conflicts of interest to declare.

APPENDIX

Table 1. Criteria of alignment maturity [19]

Factor	**Components**
Communication	Com1: The degree of understanding of Business by the IT functions
	Com2: The degree of understanding IT by Business
	Com3: The degree of richness of the methods used for the organizational learning
	Com4: The style of communication used in the organization
	Com5: The degree of knowledge sharing throughout the organization
	Com6: The use of IT Business liaisons
Competency	Comp1: Focus on the metrics and processes used to measure the contribution of the IT
	Comp2: Focus on the metrics and processes used to measure the Business contribution
	Comp3: Degree and the orientation of integrated IT and Business measures
	Comp4: Degree of service level agreements
	Comp5: Frequency and formality of benchmarking practices
	Comp6: Frequency and formality of IT assessments and reviews
	Comp7: Degree of continuous improvement practices
	Comp8: Contribution of IT in strategic objectives.
Governance	Gov1: The degree of Business strategic planning with IT involvement
	Gov2: The degree of IT strategic planning with Business Involvement
	Gov3: Basis of budgeting IT resources
	Gov4: Basis of IT investment decision
	Gov5: Frequency, formality, and effectiveness of IT steering committees
	Gov6: Integration of IT projects prioritization
	Gov7: responsiveness of IT functions to changing Business needs
Partnership	Part1: The Business' perception of the role of IT
	Part2: The role of IT in strategic Business planning
	Part3: Integrated shared risks and rewards
	Part4: Formality and effectiveness of partnership program
	Part5: Perception of trust and value
	Part6: Reporting level of Business sponsor/champion
Technology scope maturity (SCOPE)	SCOPE1: Technological and strategic sophistication of primary systems/ applications
	SCOPE2: IT standards articulation and compliance
	SCOPE3: Degree of architectural integration
	SCOPE4: Degree of infrastructure transparency
	SCOPE5: Degree of infrastructure flexibility
Skills maturity	Skills1: Degree of cultural innovation
	Skills2: Degree of integrated locus of power in IT-based decisions
	Skills3: Degree of a change readiness culture
	Skills4: Degree of opportunity for skills enrichment through job transfer
	Skills5: Degree of opportunity for skills enrichment through cross-training or job rotation
	Skills6: Degree of interpersonal interaction across IT and Business
	Skills7: Ability to attract and retain IT staff with technical and Business skills

Table 2. Business/It Strategy Matrix

Business Strategy	Prospector			Defender			Reactor		
	P1	P 2	P 3	D1	D2	D3	R1	R2	R3
P 1	1	A12	A13	A14	A15	A16	A17	A18	A19
P 2	10-A12	1	A23	A24	A25	A26	A27	A28	A29
P 3	10- A13	10- A23	1	A34	A35	A36	A37	A38	A39
D1	10- A14	10- A24	10- A34	1	A45	A46	A47	A48	A49
D2	10- A15	10- A25	10- A35	10- A45	1	A56	A57	A58	A59
D3	10- A16	10- A26	10- A36	10- A46	10- A56	1	A67	A68	A69
R1	10- A17	10- A27	10- A37	10- A47	10- A57	10- A67	1	A78	A79
R2	10- A18	10- A28	10- A38	10- A48	10- A58	10- A68	10- A78	1	A89
R3	10- A19	10- A29	10- A39	10- A49	10- A59	10- A68	10- A79	10- A89	1
Total	X1	X2	X3	X4	X5	X6	X7	X8	X9

Table 5. Companies' Maturity Assessments

	Communication	**Competency/Value**	**Governance**	**Partnership**	**Scope & Architecture**	**Skills**	**Overall Maturity**
Souriau Esterline	2,2	2,1	2,3	1,5	2,4	2,7	**Level 2**
Maroc Telecom	3,5	2,8	2,7	2,8	4,0	2,6	**Level 3**
ONCF	1,3	1,4	1,1	1,8	1,4	1,7	**Level 1**
Sofac	3,0	2,3	3,9	3,0	2,6	2,4	**Level 2**
Capgemini	3,5	4,4	5,0	4,5	4,8	4,1	**Level 4**
Barid Al Maghrib	3,5	3,3	3,6	2,8	2,2	2,3	**Level 2**
Nexans	4,0	4,3	4,4	4,3	4,0	4,7	**Level 4**
Metallurgy anonym	3,8	3,5	2,9	3,2	2,6	2,3	**Level 3**
SGMB	3,5	3,1	2,3	2,5	2,8	2,6	**Level 2**
RMA Assurance	4,2	4,4	4,3	4,2	4,2	3,6	**Level 4**
GROUPEAFMA	2,0	2,1	2,0	1,7	2,8	2,3	**Level 2**
ADM	4,7	3,9	3,7	4,5	4,2	4,4	**Level 4**
A-SIS	3,7	3,4	2,9	3,7	3,6	3,6	**Level 3**