



## Proposing a New Managerial Model for Digital Transformation

*Jihane Tayazime, PhD Candidate*

Ibn Tofail University, Kenitra, Morocco  
ENCG KENITRA

*Aziz Moutahaddib, PhD*

Professor, ENCG Kenitra  
Ibn Tofail University, Kenitra, Morocco

[Doi:10.19044/esj.2022.v18n38p53](https://doi.org/10.19044/esj.2022.v18n38p53)

---

Submitted: 24 October 2022  
Accepted: 13 December 2022  
Published: 31 December 2022

Copyright 2022 Author(s)  
Under Creative Commons BY-NC-ND  
4.0 OPEN ACCESS

*Cite As:*

Tayazime J. & Moutahaddib A.(2022). *Proposing a New Managerial Model for Digital Transformation*. European Scientific Journal, ESJ, 18 (38), 53.

<https://doi.org/10.19044/esj.2022.v18n38p53>

---

### Abstract

Digital transformation is a gateway to innovation and new models of organization, operations, and business models. The quick response of managers and leaders is becoming the key to successful digital transformation, followed by strategic flexibility according to data testing results. These results highlight the importance of agile leadership in today's changing organizational environment (Fachrunnisa et al., (2020). Hence why it is imperative to take into consideration all employees' perceptions of management to avoid resistance to change. Thus, in this research paper, we analyze the current managerial environment to better guide digital transformation through a survey destined for both managers and employees, assessing the current situation of organizational management from a diversity of perspectives. We then propose a new digital transformation managerial model based on significant correlations between the models' variables using the Chi-squared test.

---

**Keywords:** Agile leadership, digital transformation, manager, employee, model

## **1. Introduction**

With the dawn of unlimited information, new technologies, and the popularity of digital transformation among companies, traditionally structured organizations are struggling to keep up with outside forces. This traditional structure is exactly what is keeping organizations from reaching their full potential and global objectives. Information blocking and conflicts arise from the inflexibility of such structures. (Bhardwaj, S. & Srinivasan, S.; 2018). According to Cloke and Goldsmith (2002, p.4), social webs within the organization guide the growth of its structure, eliminating any silos, competitive departments and permanent size fit all policies.

Ross's model for agile management (2017) details a set of concepts that explain the agile approach: 1. Set limits. 2. Develop competencies. 3. Empower teams. 4. Grow the structure. 5. Add energy to people. 6. Improve the organizational situation. Agile leadership defines a way to establish a clear direction for firms to resolve organizational tasks due to digital transformation (Callaway et al., 2009; Doz & Kosonen, 2010).

The stability principle states that organizations are intrinsically unchanging, always striving for stability and resisting change especially once internal coherence and harmony are achieved. Other principles state that, on the contrary, organizations are hugely impacted by their inside and outside environments. Hence the importance of adapting structures and operational methods to that environment to achieve perennity (Janićijević N., 2017).

Organizational change strategy includes the approach, method, or manner by which changes are implemented in an organization (Nickols, 2010).

The main function of digitalization is to make relationships more flexible and less framing while allowing simpler and faster communication and more important data exchange. In fact, in the sense of gaining greater market share and opportunities for innovation, digitalization has made a significant contribution to new perspectives (Derridj R. & Amiar L., 2020).

The digital infrastructure has accelerated the emergence of new technologies: social media, cloud computing, analytics, big data, wearable devices, etc. (Jihane, T. & Aziz, M; 2022), hence why many organizational fields are subject to deep changes, including how managers run their departments.

## **2. Literature review**

### **a. From command-and-control management to agile leadership**

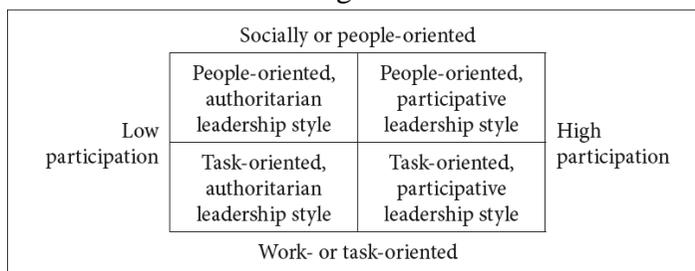
Produce or perish leaders or, in more simple words, authoritarian managers see their subordinates as workers almost, with little to no acknowledgment of their needs and punishment as an effective source of motivation (Taucean et al., 2016). Autocracy, hierarchy, bureaucracy, and management are gradually being replaced by flat collaborative teams.

Employees are transforming from indifferent into value-driven and responsible people (Cloke and Goldsmith, 2002, p. 4).

The logic behind traditional management is to define clear consistent methods for the most effective results and simplified operations, as organizations are tangible measurable, and knowable (Tordrup & Engholm, 2022). In this approach, Taylor’s approach to management, organizations are controlled scientifically, always looking for the best way to do the job.

Weber’s well-known perspective on the matter is that bureaucracy and formality are the principal guarantees to dissociate organizational objectives from personal motives. This bureaucracy deals with situations and not the people behind them (Cruz, 1995).

As factors change, the authoritarian management framework finds itself being replaced in most cases by more flexible and social management. This type of management, called agile leadership, takes much more interest in individual relationships (Bushuyeva, N. et al., 2019). It gives a human, social, and almost familiar vision of the organization.



**Figure 1.** Leadership styles (Janićijević, N., 2017)

This type of leadership influences constantly the team’s behaviour by guiding and defining a common vision of the organization by “defining, spreading, and maintaining organizational vision” (Parker et al., 2015). Gardner et al. (2005) summarize that guidance in the intrinsic ability to face change; organizational views, adaptive systems; recognition of external control constraints; a humanistic, problem-solving approach; collective capability of autonomous team as basic problem-solving mechanisms; limiting planning in advance to the minimum based on the assumption of uncertainty; adaptability; react based on the results from a self-managed team; and manage results.

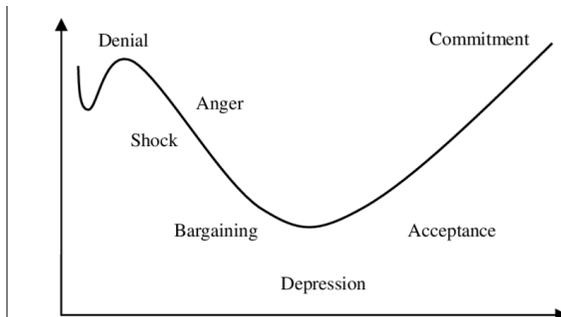
O. Fachrunnisa et al. (2020) define agile leadership as a style that can give fast responses to business opportunities and threats that derive from changes and advances in information technology. The five-point Likert scale with four items from Parker et al. (2015) defined agile leadership as a shared responsibility, effective problem recognition and decision making, adaptive system, and flexible structure.

Agile leadership is considered to be an important component in the successful implementation of digital transformation in the business environment, with the help of a visionary leader who has strategic and critical thinking in making decisions. Moreover, a leader also needs to have initiative and awareness in implementing modern scientific methods because of the rapid and uncertain environmental changes (O. Fachrunnisa et al., 2020). This style of leadership is essential to create an agile organization to accompany the digital transformation tendencies. Agile management is mainly focused on creating value instead of tight working schedules, through short-cycled quality performance (Azarov et al., 2012).

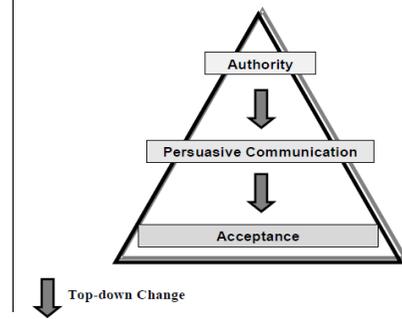
#### **b. Resistance to change and change management models**

Change management has been previously defined as ‘the process of continually renewing an organization’s direction, structure, and capabilities to serve the ever-changing needs of external and internal customers’ (Moran & Brightman, 2001). For a long, it has been believed that a strong routine and constant environment guarantee improved performance and effective employees (Rieley and Clarkson, 2001; Luecke, 2003). When in reality, “change programs often fail because of poor management: poor planning, monitoring and control, lack of resources and know-how, and incompatible corporate policies and practices. Good management of change is a sine qua non” (Gill, R., 2002). An American Management Association survey of 259 senior executives (1994) showed that the first key to a successful change is leadership (92% voted importance), then come corporate values, communication, and team building (84%, 75%, and 69% successively voted importance).

Grundy (1993) and Senior (2002) differentiate between smooth and bumpy incremental change. Grundy (1993) defines discontinuous change as a ‘change which is marked by rapid shifts in either strategy, structure or culture, or in all three. Change or transformation can be triggered by major internal problems or by considerable external shock (Senior, 2002). In the context of digitalization, it is rather triggered by the constant evolution of the digital market and technologies.

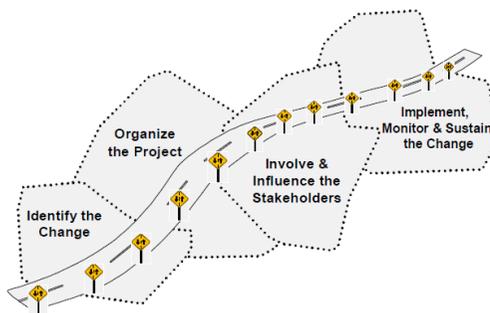


**Figure 2.** Kübler-Ross change curve (1969)

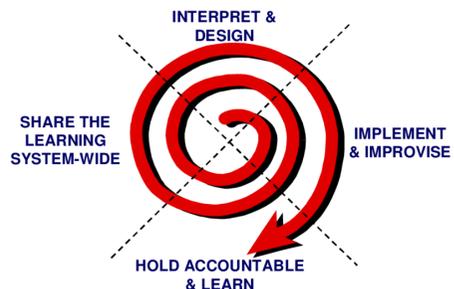


**Figure 3.** Directed change (Kerber & Buono, 2005)

Psychiatrist Elisabeth Kübler-Ross theorized the emotional stages of a person who learns of their impending death in a model that was then readapted and applied to organizational change management. The change curve shows the 7 stages of accepting a change. It starts with the shock element, denial, and frustration following the many differences that are now a reality and depression. As the change starts to settle in, experimentation and curiosity begin which leads to a more positive situation, by then the change settles in (Figure 2). On a rather operational level, Kerber (2001) finds that there are three interrelated approaches to organizational change, and that should decrease the level of resistance: directed change (Figure 3), planned change (Figure 4), and guided change (Figure 5).



**Figure 4.** Planned change roadmap (Kerber & Buono, 2005)



**Figure 5.** Guided changing spiral (Kerber, 2001)

**c. Job and skill adaptation to Industry 4.0**

As of the new industrial era, being open-minded and flexible is the way to benefit from the highly changing market. Labor costs are relatively low and so many jobs have been created. People who cannot adapt to the pace and requisites of the current technological ecosystem are undergoing the consequences of a new world (Melnik V., 2019).

Work operational processes and environment are set to be significantly impacted by the latest automation and digital technologies such as the Internet of Things, cloud computing, and Big Data (Chryssolouris et al., 2013). We can already observe a great diversity of new jobs related to digitalized operations within all sectors, which brings in new skill requirements expected from job candidates (Smith J., 2016; Hartmann, 2013).

Pinzone et al. (2017) led one of the first exploratory studies presenting the new set of Industry 4.0 skills required for the successful implementation of digital transformation. They categorized the required technical skills for Industry 4.0 according to the following 5 organizational areas they investigated: 1) Operations Management; 2) Supply Chain Management; 3) Product-Service Innovation Management; 4) Data Science Management; 5) IT-OT Integration Management.

‘Existing hierarchies, job titles, bureaucracies have to be demolished and the system has to be made dynamic and flexible’ (Bhardwaj & Srinivasan). The transformation of an organization’s activities, to further adopt a specific customer-centric approach, requires critical scrutiny, planning, and prioritization of the added value of an organization's existing jobs and activities. According to Ducrey, V. & Vivier, E. (2019), the job market is changing. Employers predict that 35% of their business will change or disappear in the next 10 years. There will be a fight to attract and retain the best digital talents, due to the continuously increasing demand for digital jobs and the scarcity of the profiles concerned, giving them great bargaining power.

### **3. How agile leadership helps in creating a new digital environment**

#### **a. Research methodology**

Throughout the literature reviewing process, the way the term leader and manager are used indistinctly caught our attention. For Azad et al (2017), what made it impossible to discern the authors meaning was the deeply intertwined with the definitions of leader and manager as most managing skills are those of a leader, which led to the concluding that there were no clear differences or distinctions between leading or managing. Based on this logic, we are using the two terms without any distinctions in our survey to see if managers and employees make a difference between the terms.

Going agile needs important transformations in the organizations’ ways of operating, notably in its management style. A transit from a command-and-control style to a higher level of self-organizing teams and leadership roles is what happens generally (Engholm).

In our survey, we used Engholm’s model of agile leadership skills to build half of the proposed facts to be checked in the questionnaire. The other half was taken from the previous literature review and involved authoritarian management as well as change management principles. The same facts were

proposed in 2 questions, the first one regarding the present managerial situation, while the second considered the statements from a visionary perspective to conclude respondents' expectations of their managers or themselves.

The survey counts 72 participants in total, of which the descriptive statistics are presented in the tables below. After examining each response, we excluded 3 because of comments made that showed us a misinterpretation of the questions, thus a bias that would jeopardize the results. The other 69 responses were valid and are the ones used in this study. As our research was conducted in Morocco and on Moroccan companies, we took into consideration the 3 company types common in the country (public, semi-private and private) for more accurate and logical results. The questionnaire was elaborated on Google forms and shared on all social media for better visibility and faster responses. The timestamp column on SPSS 25 shows that the first response was entered on September 19<sup>th</sup>, 2022, and the last one on October 14<sup>th</sup>, 2022.

<i>Gender</i>			<i>Respondent's status</i>		
	Frequency	%		Frequency	%
Female	24	34,8	Employee	46	66,7
Male	45	65,2	Manager	23	33,3
Total	69	100,0	Total	69	100,0

<i>Age Category</i>			<i>Respondent's company type</i>		
	Frequency	%		Frequency	%
21-35	45	65,2	Private	35	50,7
36-45	17	24,6	Semi-public	18	26,1
46-60	7	10,1	Public	16	23,2
Total	69	100,0	Total	69	100,0

<i>Respondent's company's size</i>		
	Frequency	%
Large business	50	72,5
Small business	7	10,1
SME	12	17,4
Total	69	100,0

## **b. Survey results and analysis**

We analyzed first in our study the correlation between different managerial statements and managerial vision statements with the respondents' status, age category, and gender. Since we obtained nominal data from the

survey, we had to use Pearson’s chi-square test to find significant correlations (tables 1 and 2).

Some respondents, notable managers, commented on how managerial perspectives must certainly be correlated with the companies’ sectors. We conducted a Chi-square test to study this hypothesis. With a confidence interval at a 5% threshold, all significance thresholds were above 5%. This drives us to retain the null hypothesis that no relationship exists between the managerial statements and the sector affectation.

The most significant variable for the study is the respondents’ status, but only in the present managerial situation. In Tables 1 and 2, we can see that status is correlated with T1, T2, T4, T5, M1, M2, and M4, or 53,84% of all statements of the first question. Gender also correlates with M1, M2, and M4 which makes it the second more significant variable in this study. A threshold of 0.1 was used in the chi-squared test due to the size of the sample.

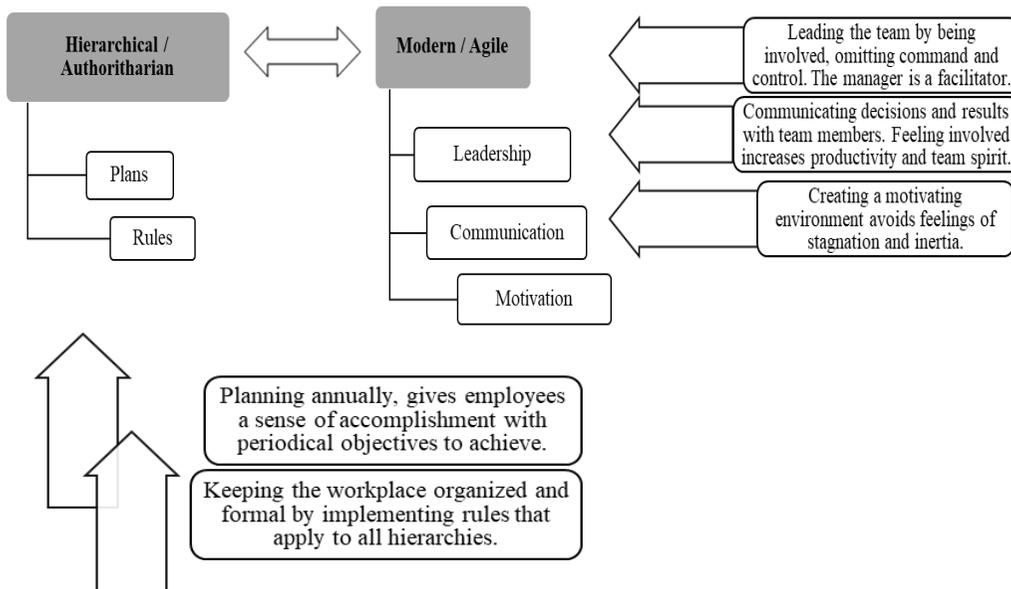
*Table 1. Chi-squared test significances for traditional management statements*

Traditional statements	Age		
	Status	category	Gender
T1	<b>.017</b>	,389	,153
T2	<b>.006</b>	<b>.044</b>	,474
T3	,429	,773	,592
T4	<b>.063</b>	,338	,456
T5	<b>.013</b>	,929	,715
T6	,609	,389	,792
T7	,488	,697	,704
T8	,718	,951	,284
vT1	,693	,365	,592
vT2	,733	,191	,947
vT3	,663	,385	,736
vT4	,128	,234	,757
vT5	,864	,476	,113
vT6	,864	,656	,157
vT7	,479	,418	,156
vT8	<b>.017</b>	,527	,659

*Table 2. Chi-squared test significances for modern management statements*

Modern statements	Age		
	Status	category	Gender
M1	<b>.057</b>	,586	<b>.055</b>
M2	<b>.033</b>	,970	<b>.011</b>
M3	,290	,559	,181
M4	<b>.007</b>	,728	<b>.011</b>
M5	,122	,289	,773
vM1	,189	<b>.070</b>	,471
vM2	.	.	.
vM3	,573	,772	,716
vM4	,310	,577	,295
vM5	,629	,123	,288

When comparing sig values, we noticed that status, age category, and gender influence the respondents' vision of good management in their workplace. Respondents no matter their demographic characteristics agree on most statements in the second question, which makes them settle on common expectations from management, as we can see in vT1 (no 75,4%), vT3 (yes 81,2%), vT4 (yes 81,2%), vT7 (no 63,8%), vM1 (yes 92,8%), vM2 (yes 100%), vM3 (yes 89,9%), vM4 (yes 97,1%) and vM5 (yes 85,5%) which makes them agree on 69,23% of all vision statements, and in particular all modern management visions. We can now conclude from visions votes favorably and respondents' commentaries a model of expected managerial behavior from different perspectives, which is presented in figure 6.



**Figure 6.** The digital transformation managerial model

## Conclusion

As seen in the previous literature review, the advent of very developed technologies have changed the way companies in general execute and operate their processes. With that comes big internal and external transformations that drive managers and employees to change their ways of cooperating. This study showed us just how much the current managerial environment doesn't fit into one category of management. To successfully implement digital transformation in a company, it is imperative to take into consideration all employees' perceptions of management to avoid resistance to change which is usually the most important failure factor for any kind of transformation,

especially innovative transformations where employees and managers find themselves outside their comfort zone of what they are used to.

Although our sample size is valid, we would suggest a bigger sample for future studies on the subject to be able to generalize these results.

### References:

1. Azad, N. et al. (2017). Leadership and Management Are One and the Same. *American journal of pharmaceutical education*, 81 (6), s. 102. doi:10.5688/ajpe816102
2. Azarov, N. J., Jaroshenko, F. A., Bushuyev, S. D. (2012), *Innovation principals for managing development program*, Kyiv, Ukraine, Sammin Kniga, 528 p.
3. Bhardwaj, S., & Srinivasan, S. (2018) DE-STRUCTURING THE ORGANIZATION PROCESSES AND STRUCTURES IN THE FACE OF CHANGES. *ENTERPRISES AND ECONOMIES IN THE FACE OF CONTEMPORARY CHALLENGES*, 135.
4. Bushuyeva, N., Bushuiev, D., & Bushuieva, V. (2019). Agile leadership of managing innovation projects. *Innovative Technologies and Scientific Solutions for Industries*, (4 (10)), 77-84.
5. Callaway, S. K., Celuch, K., & Murphy, G. B. (2009). Strategic flexibility and SMEs: The role of information technology for managing internal and external relations. *New England Journal of Entrepreneurship*, 12(1), 9–17.
6. Chryssoulouris, G., Dimitris, M., Dimitris, M.: *Manufacturing systems: skills and competencies for the future*. *Procedia CIRP* 7, 17–24 (2013).
7. Cruz, M. B. da (1995). Teorias sociológicas. Os fundadores e os clássicos [Sociological theories. The founders and the classics]. Lisboa: Fundação Calouste Gulbenkian.
8. Derridj, R., & Amiar, L. (2020). La digitalisation au sein du secteur bancaire : entre causes et conséquences cas d'ABC Bank.
9. Doz, Y. L., & Kosonen, M. (2010). Embedding strategic agility: A leadership agenda for accelerating business model renewal. *Long Range Planning*, 43(2–3), 370–382.
10. Ducrey, V., Vivier, E. (2019). *Le guide de la transformation digitale*. Eyrolles.
11. Engholm, A. A MODEL OF AGILE LEADERSHIP COMPETENCIES AND SKILLS: A CASE STUDY OF AN AGILE TRANSFORMATION.
12. Fachrunnisa, O., Adhiatma, A., Lukman, N., & Ab Majid, M. N. (2020). Towards SMEs' digital transformation: The role of agile leadership and strategic flexibility. *Journal of Small Business Strategy*, 30(3), 65-85.

13. Gardner, W., Avolio, B., & Walumbwa, F. (2005). *Authentic leadership theory & practice*. Elsevier Science.
14. Gill, R. (2002). Change management--or change leadership?. *Journal of change management*, 3(4), 307-318.
15. Grundy, T. (1993) *Managing Strategic Change* (London: Kogan Page).
16. Hartmann, E.A., Bovenschulte, M.: Skills needs analysis for “industry 4.0” based on roadmaps for smart systems. In: *Using Technology Foresights for Identifying Future Skills Needs*. Global Workshop Proceedings, Moskow, SKOLKOVO Moscow School of Management & International Labour Organization, pp. 24–36 (2013)
17. Jančićević, N. (2017). Organizational models as configurations of structure, culture, leadership, control, and change strategy. *economic annals*, 62(213), 67-91.
18. Jihane, T. & Aziz, M. (2022). Banks and FinTech Relationship in a Digital Transformation Context. *European scientific journal, ESJ*, 18 (12), s. 106. doi:10.19044/esj.2022.v18n12p10
19. Kerber, K., & Buono, A. F. (2005). Rethinking organizational change: Reframing the challenge of change management. *Organization Development Journal*, 23(3), 23.
20. Kerber, K.W. (2001). Change in human systems: From planned change to guided changing. In A. F. Buono (Ed.), *Current trends in management consulting* (pp. 145-169). Greenwich, CT: Information Age Publishing.
21. Kubler-Ross, E. (1969). *On death and dying*. New York: MacMillian.
22. Luecke, R. (2003) *Managing Change and Transition* (Boston, MA: Harvard Business School Press).
23. Melnik, V. (2019). Agile-management 3.0 concept as a factor of technological progress development in the digital society. *Humanities Studies*, 1, 130-139.
24. Moran, J. W. and Brightman, B. K. (2001) ‘Leading organizational change’, *Career Development International*, 6(2), pp. 111–118.
25. Nickols, F. (2010). Four Change Management Strategies. *Distance Consulting*.
26. Parker, D. W., Holesgrove, M., & Pathak, R. (2015). Improving productivity with self-organised teams and agile leadership. *International Journal of Productivity and Performance Management*, 64(1), 112–128.
27. Pinzone, M., Fantini, P., Perini, S., Garavaglia, S., Taisch, M., & Miragliotta, G. (2017, September). Jobs and skills in Industry 4.0: an exploratory research. In *IFIP International Conference on Advances in Production Management Systems* (pp. 282-288). Springer, Cham.

28. Rieley, J. B. and Clarkson, I. (2001) 'The impact of change on performance', *Journal of Change Management*, 2(2), pp. 160–172.
29. Ross Alec (2017). *Industries of the future* / trans. from English. Natalia Koshmanenko. Kyiv: *Our Format*. 320.
30. Senior, B. (2002) *Organisational Change*, 2nd edn (London: Prentice Hall).
31. Smit, J., Kreutzer, S., Moeller, C., Carlberg, M.: *Industry 4.0* (2016) Taucean, I. M., Tamasila, M., & Negru-Strauti, G. (2016). Study on management styles and managerial power types for a large organization. *Procedia-Social and Behavioral Sciences*, 221, 66-75.
32. TAYAZIME, J., & MOUTAHADDIB, A. (2022). La Transformation Digitale de l'Administration Publique au Maroc : La Perception des Usagers Particuliers. *Revue de Gestion et d'Économie*, 9(1 & 2), 71-85.