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EXECUTIVE SUMMARY OF THE THESIS

The role and influence of stakeholders in digital transformation projects

The experience of cultural institutions on “Bando SWITCH”

TESI MAGISTRALE IN MANAGEMENT ENGINEERING – INGEGNERIA GESTIONALE

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1. Introduction

The current business landscape, characterized by fast evolving and breakthrough technologies, is forcing organizations to seek innovative approaches to the Digital Transformation (DT). This allows organizations to embrace growth opportunities, boost productivity and respond to the constant stimuli of the digital age (Schiuma et al., 2021). DT has left no one indifferent and this trend has involved organizations operating in multiple sectors. Over the past 10 years both at the European and Italian levels initiatives to support DT have arisen. Among the various contexts, it is worth to pay attention to the cultural one. As a matter of fact, the spread of COVID-19 has had an inexorable impact on cultural institutions such as museums, theaters, and galleries. The majority of them have gone digital, giving virtual tours, concerts, and performances online, boosting global

access to creative activities that would otherwise be out of reach (Agostino e Arnaboldi, 2021; Massi et al., 2022).

2. Literature review

This section outlines the literature review that was developed by considering the current academic knowledge of two main domains: i) DT and ii) Cultural Institutions. The thesis focuses on the intersection between the two areas.

Even though the literature proposes several definitions of DT, the one that has been selected for our research is offered by Hinings et al. (2018: 53). *“Combined effects of several digital innovations bringing about novel actors (and actor constellations), structures, practices, values, and beliefs that change, threaten, replace or complement existing rules of the game within organizations, ecosystems, industries or fields”*.

This definition has been chosen due the emphasis on the notion of “novel actors” that introduces the key role that stakeholders can play in a DT. Moreover, the definition highlights the concept of “practices” which involves a reflection on what are the processes that characterize the journey.

Since the DT phenomenon is gaining momentum, it is worth to cite the main opportunities that it can bring. Indeed, it allows organizations to maintain competitive advantages thanks to a quicker innovation process, and, to enlarge the ecosystem of stakeholders involved, establishing new kind of relationship.

Beside these new prospects, DT also brings challenges that organizations have to face. A continuous consistency between the strategy creation and its implementation is required. Moreover, to ensure an effective outcome of this transformation, organization should engage those people who can drive and affect the development of a DT.

Hammer (2016) emphasizes that technology alone cannot produce “magical outcomes,” and that the adoption of it depends on how people utilize the technology, particularly if they can use it to enhance long-standing skills and experience. In this regard, the role of digital providers (Kraus et al., 2021) emerged, thus those external entities that support the organizations providing new data, competences, capabilities and skills.

Overall, the available literature addresses the DT on three main streams of research: a) DT and the organizational impact, b) DT and the managerial implication, c) DT and people.

The second domain of research are the cultural institutions that have been taken as empirical context for this research. Considering the Italian scenario, the cultural world has a primary importance, as underlined by article 9 of the Constitution and by the presence of large number of cultural sites and institutions.

In this context, it has emerged the essential role of DT on preserving and valorizing cultural assets. Even though cultural institutions are often considered as traditional entities, in recent years the pressure to “become digital” has increased (Agostino e Costantini 2021).

This boost is creating several opportunities that cultural institutions could leverage on, allowing to increase new ways to access the cultural heritage. Another opportunity is the enhancement of attractiveness of cultural assets thanks to the improvement of user experience with innovative digital technologies. For example, visitors can appreciate artworks through virtual museums’ visits and digital supported representations in theatres.

The main challenge that cultural institutions should be aware of is the need to change their business models to achieve and maintain their competitiveness. For instance, one of the major shifts could be the one “from partners collaboration to actors’ integration” (Russo Spina e Bifulco 2021). The diffusion of new technologies involves a broader spectrum of partners and stakeholders in the development, for example, of apps, tools, and integrated solutions.

Overall, the current academic debate in the field of DT in cultural institutions is summarized by three main streams of research: a) DT and impact and assessment in cultural organization, b) DT impact on user experience, c) DT and people in cultural sector.

The relevance of the DT phenomenon and the increasing pace of its diffusion within cultural institutions in the Italian territory, led us to deepen the topic.

The literature review allowed us to find out that one of the major gaps in the analysis of the two domains concerns the lack of managerial implications of DT in cultural institutions.

Furthermore, the centrality of people, not only in the cultural context, but also in other domains where the DT is implemented, and the importance of the topic at a managerial level, have prompted us to understand the influence of the stakeholders involved in a DT project.

In this context, a first Research Question (RQ) has been formulated:

RQ1: “Which are the stakeholders involved in a DT project and how do they influence its development in terms of enabling factors?”

Even though the literature mentions and recognizes the presence of providers in the context of DT, an in-depth analysis is missing of their role. Therefore, with the aim to provide a managerial support for the development of a DT project and taking into consideration the role of all the stakeholders involved, the second RQ has been formulated:

RQ2: *“Which is the role played by a digital provider?”*

Furthermore, the importance of leaders for DT management emerges from the literature. This aspect is analyzed by defining the key competences that leaders must have to support the development of DT (Schiuma et al., 2021).

Therefore, a missing aspect is related to the practical suggestions about steps and actions that the management should consider enabling an effective DT project.

RQ3: *“What are the steps for the development of a DT project considering the various stakeholders involved under a managerial perspective?”*

Our contribution is not limited to highlight the role and the kind of influence of the stakeholders involved, but it provides a practical-oriented contribution that can be applied at a managerial level first in the cultural, but also within other domains.

3. Stakeholder Theory

The choice of the theoretical lens to perform our research has been carried out analyzing the main organizational theories: among them, the Stakeholder Theory (ST) proposed by Freeman (1984) has been selected. It is a managerial theory which aims to identify and describe those stakeholders that deserve or demand a managerial attention. The author provides a broad definition of stakeholders as *“any group or individual who can affect or is affected by the achievement of the organization’s objectives”* (1984:46).

Throughout the years, several academics provided reinterpretations of the ST: for the aim of this study, it is worth to mention the contributions of Donaldson e Preston (1995) and Mitchell et al. (1997)

Donaldson e Preston (1995) highlight the change of paradigm between the conventional “Input-Output model” and the “Stakeholder model”. In the former suppliers, investors and employees provide input that are transformed into output just for the customer benefit, passing by the firm’s “black box”. The latter, instead, suggests how all the stakeholders can impact or being impacted by the firm. This is graphically represented by bidirectional arrows that connect each actor with the firm.

Regarding Mitchell et al., they introduced the “Theory of Stakeholder Identification and Saliency” (TSIS) (1997). The intention of TSIS is to define *“those entities to whom managers should pay attention”* (1997:854).

Once the stakeholders that interact with the firm are identified, the TSIS suggests how to prioritize and classify them based on their saliency. The saliency is defined as *“the degree to which managers give priority to competing stakeholder claims”* (1997:854) and it is characterized by three attributes: power, legitimacy, and urgency. The more attributes the stakeholder possesses, the greater will be its saliency.

Furthermore, the level of saliency allows to classify stakeholder in three different classes.

“Latent stakeholders” are those that possess just one of the three attributes. Three typologies of stakeholders belong to this class: dormant, discretionary, demanding stakeholders. “Expectant stakeholders” are those that possess two out of three attributes. Three typologies of stakeholders belong to this class: dominant, dangerous and dependent stakeholders.

Finally, “definitive stakeholders” are those that possess all three attributes, having the highest level of saliency.

To successfully achieve organizational goals, it is worth to recognize the different saliency of the stakeholders involved.

4. Methodology

The methodological approach that has been followed allowed us to respond to the previously stated research questions. In the following paragraphs, it is presented the literature review methodology and the case study approach.

4.1. Literature review methodology

A “pure” narrative review methodology has been applied to conduct the literature review. This non-systematic approach was pursued through two distinctive phases: the search phase and the review one.

For the search process, we have adopted a “snowballing sampling” approach (SB). The term “snowballing” refers to the practice of identifying further publications by leveraging a paper’s reference list or its citations (Wohlin 2014).

The SB was carried out by first constructing a start set and then iteratively performing both Backward Snowballing (BSB) and Forward Snowballing (FSB) of the start set.

The start set was created considering two sources: i) academic papers provided by our supervisor and co-supervisor regarding DT and DT in cultural institutions; ii) on Scopus based on the papers found after multiple search strings attempts considering several keywords. Then, the identification of the definitive starting set has been performed by selecting only those articles aligned with the aim of the research.

The BSB consisted of examining the reference list of each paper belonging to the start set in order to find other articles to include in the study (Wohlin, 2014).

The FSB refers to the process of discovering papers based on articles that cite the paper under examination (Badampudi et al., 2015).

4.2. Case study methodology

The empirical context of our research was the cultural domain. Our unit of analysis was represented by DT projects undertaken by cultural institutions. Specifically, five cultural entities have been selected to explore the DT in the Italian Cultural domain.

A qualitative approach was chosen as being particularly appropriate for investigating a novel subject such as the one under examination (Yin 1984). Therefore, to explore the stakeholder’s role in a DT project, a multiple case study has been applied (Eisenhardt e Graebner 2007).

The five cultural institutions were selected as winners of “Bando SWITCH” promoted by

Fondazione Compagnia di San Paolo (FCSP) in conjunction with Links Foundation and Observatory of Digital Innovation in Arts, Heritage and Culture of Polytechnic of Milan. The aim of the presented call was to create attractiveness and to promote the development of strategies and tools for the DT in culture.

The data have been collected through two rounds of semi-structured interviews, each lasting four months. The stakeholders involved in both the interviews phases were project managers (PMs), employees, and digital providers.

Additionally, FCSP, Links Foundation, the Observatory of Digital Innovation in Arts, Heritage and Culture of Polytechnic of Milan have been interviewed to have a broader perspective of the phenomenon.

The data that have been collected includes primary and secondary data. The former consisted of 47 formal interviews with 52 respondents for approximately 50 hours for the entire period under analysis.

The secondary data consisted of those documents provided to apply the call: multi-year innovation plan, executive project, work breakdown structure (WBS), organization breakdown structure (OBS) and the request form.

The data gathered were analyzed by adopting the theoretical lens of the ST. First, the stakeholders involved in the five DT projects were identified according to the Stakeholder Identification approach. Second, to each stakeholder the three attributes of power, legitimacy and urgency have been allocated to define their salience according to the qualitative approach of Stakeholder Salience.

From the analysis carried out emerged that:

- Project manager and funding entity are definitive stakeholders (all three attributes);
- Employees are dominant stakeholders (class of “expectant stakeholders”, two out of three attributes);
- Digital provider, and research and monitoring center are Discretionary stakeholders (class of “latent stakeholders”, one out of three attributes).

To support this process a data structure has been created. It is characterized by i) 1st order concepts; ii) 2nd order concepts; iii) aggregate dimensions. Adopting a grounded theory approach, the latter represent the classes of stakeholders cited in the Stakeholder salience with which are associated patterns (2nd order) and actions (1st order) that will be explained in the findings section.

5. Findings

The data analysis of the five cases selected in the cultural context allowed us to recognize the class of stakeholders involved in the DT project under examination. The kind of stakeholders found out are definitive, dominant, and discretionary. Moreover, is worth to underline the relationship established between discretionary and dominant.

The main finding concerns the different patterns (2nd order concepts) and the related actions (1st order concepts) through which definitive, dominant and discretionary stakeholders can influence a DT project. Each stakeholder could influence the transformation exerting tangible and/or intangible actions. The set of actions that belongs to the same aspect constitute a pattern.

The evidence shows that PMs and the funding entity – *definitive stakeholders* – influence the project by:

- Promoting and managing training activities;
- Taking care of the design of organizational activities and team management;
- Manage resources and capabilities inside and outside the organization;
- Empowering and defining a strategic vision;
- Offering availability and fostering a reciprocal trust.

The employees of the cultural entities – *dominant stakeholders* – influence the DT project by:

- Being prepared to be engaged (employee engagement);
- Embracing orientation toward innovation;
- Scheduling and managing frequent update and alignment between peers and other stakeholders involved.

Digital providers, and research and monitoring centers – *discretionary stakeholders* – can influence and support a DT project by:

- Monitoring activities;
- Providing a technical support.

Analyzing the role of digital provider, a dichotomy between those who served as simple technology providers and those who supported organizations as project partners, offering organizational and strategic support emerged. The former are labeled as "digital suppliers" (Chapter 5, secondary contribution), while the latter are labeled as "digital partners" (Chapter 5, secondary contribution). Digital partners play a facilitators' role for a DT project.

The identification of "digital partners" has driven our attention to the relationship that could be established between them and employees, affecting the development of the whole DT project. The influence that they can exert depends on:

- The sharing of a common language;
- Nurturing reciprocal trust and contamination;
- Identifying a digital-cultural mediator.

6. Discussion

6.1 First contribution

From the academic standpoint, this thesis overcomes a relevant literature gap concerning the managerial acknowledgment of the stakeholders involved and their influence in a DT project. Indeed, even if it is recognized the pivotal role of people (Musa, 2019; Schneider and Kokshagina, 2021), the literature does not specify the stakeholders' actions and attitudes to positively affect the DT.

By leveraging on the ST, the cases examined allowed us to identify those stakeholders involved in a DT project, and the different degree of influence they exert according to their salience.

Thus, the first contribution involves a redesign of the Stakeholder Model proposed by Donaldson and Preston (1995) in which at the center is represented the DT project and no longer the firm.

Around it, stakeholders involved and the related class of belongingness are represented (Definitive, Dominant and Discretionary).

Moreover, in our model (green and red) arrows connect unidirectionally the stakeholders to the DT project, to emphasize how each of them could influence a DT's project, and not on the other way around.

Therefore, the more the stakeholder implements and enables certain actions, and consequently the related pattern, the more the stakeholder will positively influence the DT project (green arrow). Conversely, if the positive stakeholder's influence is lower or absent the arrow highlight the negative effect generated (red arrow).

Eventually, to clarify and explicit the degree of influence exerted by stakeholders, we have proposed a tachometer chart. At a managerial level, this tool may be adopted, throughout the DT project, to monitor the influence of the stakeholders and, as a result, to further implement and enable those actions that would improve a DT project.

6.2 Second contribution

From the literature, the "digital provider" stakeholder is also defined as "partners" (Correani et al., 2020; Appio et al., 2021; Russo Spena and bifulco, 2021) or as "external consultant".

However, the data analyzed allowed us to offer a second contribution concerning the role of such stakeholder. Indeed, our research aims to outline how the digital providers are not necessarily classifiable as an external stakeholder.

Indeed, the evidence gathered allows us to distinguish the "digital provider" into: i) "digital supplier" who simply provide the technology and are "external stakeholders"; ii) "digital partners" considered as "internal stakeholders" due to the close relationship established with the organization.

6.2 Third contribution

The literature offers useful frameworks that organizations can adopt to pursue DT projects. For

instance, Schiuma et al. (2021) provide a model that describes the necessary leadership skills to help firms move toward a DT.

However, our third contribution consists of a framework that differs from the others identified in the literature, since it outlines the tangible and intangible actions that make up the whole DT process.

Additionally, it is a practitioner-oriented model that recognizes the central role covered by people. Indeed, it provides a set of strategic and organizational guidelines that can support the development of a DT project in those contexts where the role of people wants to be valorized.

The circular model that we propose is characterized by four steps:

1. **Strategic Planning phase:** it indicates the starting point for an effective DT plan execution in which the organization should claim its strategic objectives.
2. **Design phase:** it consists mainly of defining the capabilities and roles available within the organization and those that need to be integrated while pursuing a DT project.
3. **Implementation phase:** it entails the translation of the previously formulated digital strategy into a concrete plan and set of several actions.
4. **Monitoring & refining phase:** it involves a tracking of achievements to enable organization to reformulate its priorities and directions.

7. Conclusions

Our research provides an understanding of the extant debate at the intersection between the DT and cultural institutions. Specifically, it provides useful insights at the academic level and at a managerial level to better approach a DT project considering the role and the influence of the stakeholders involved.

The first academic contribution covers the gap that emerged from the literature concerning the absence of managerial contributions to cultural institutions when dealing with a DT project. Even if this contribution covers the gap for the specific cultural context, it can be extended also in other

domains. This is due to the central presence of people that characterize each transformation, independently from the empirical context. In concrete terms, the theoretical contribution made it possible to apply the Stakeholder Model of Donaldson and Preston (1995) to our empirical context. This was useful to provide an overview of the stakeholders involved and of the set of actions, labelled as “patterns” that, if implemented by the stakeholders, can influence a DT project.

The second academic contribution is related to the role of digital provider, who can act as “digital supplier” or “digital partner”.

Besides these contributions, also a managerial one emerged. In particular, the practical framework characterized by the four phases is a managerial tool that allows to understand the stakeholders involved and the actions that enable the DT project. Indeed, it provides a practical guideline to distinguish the various roles and contribution of the stakeholders involved.

Although the research provides these contributions, the study presents some limitations that leaves various avenues open for scholarly investigation. Our thesis analyses how stakeholders influence the DT project and not on the other way around. Therefore, future studies could analyse how a DT project influences the actions of the stakeholders involved.

Second, this research does not consider the role of HR department which could enhance the centrality of people within a DT project. Thus, future research could integrate the enabling actions implemented by this kind of stakeholders.

Lastly, in our sample, just one case (Case E) is a public organization, while all the other have a private nature. Therefore, this acknowledgment did not allow us to compare the enabling factors considering the different type of governance characterizing the five cases. Future research could further investigate this stream.

References

- Agostino, Deborah, e Michela Arnaboldi. 2021. «From Preservation to Entertainment: Accounting for the Transformation of Participation in Italian State Museums». *Accounting History* 26 (1): 102–22. <https://doi.org/10.1177/1032373220934893>.
- Agostino, Deborah, e Chiara Costantini. 2021. «A Measurement Framework for Assessing the Digital Transformation of Cultural Institutions: The Italian Case». *Meditari Accountancy Research* 30 (4): 1141–68. <https://doi.org/10.1108/MEDAR-02-2021-1207>.
- Badampudi, Deepika, Claes Wohlin, e Kai Petersen. 2015. «Experiences from Using Snowballing and Database Searches in Systematic Literature Studies». In *Proceedings of the 19th International Conference on Evaluation and Assessment in Software Engineering*, 1–10. Nanjing China: ACM. <https://doi.org/10.1145/2745802.2745818>.
- Borowiecki, Karol J., e Trilce Navarrete. 2017. «Digitization of Heritage Collections as Indicator of Innovation». *Economics of Innovation and New Technology* 26 (3): 227–46. <https://doi.org/10.1080/10438599.2016.1164488>.
- Donaldson, Thomas, e Lee E Preston. 1995. «The Stakeholder Theory of the Corporation: Concepts, Evidence, and Implications», 28.
- Eisenhardt, Kathleen M., e Melissa E. Graebner. 2007. «Theory Building From Cases: Opportunities And Challenges». *Academy of Management Journal* 50 (1): 25–32. <https://doi.org/10.5465/amj.2007.24160888>.
- Freeman, R. Edward. 1984. *Strategic management: a stakeholder approach*. Pitman series in business and public policy. Boston: Pitman.
- Kraus, Sascha, Paul Jones, Norbert Kailer, Alexandra Weinmann, Nuria Chaparro-Banegas, e Norat Roig-Tierno. 2021. «Digital Transformation: An Overview of the Current State of the Art of Research». *SAGE Open* 11 (3): 215824402110475. <https://doi.org/10.1177/2158244021104756>.
- Massi, M., M. Vecco, e L. Yi. 2022. *DIGITAL TRANSFORMATION IN THE CULTURAL AND CREATIVE INDUSTRIES: Production*. S.l.: ROUTLEDGE.
- Mitchell, Ronald K., Bradley R. Agle, e Donna J. Wood. 1997. «Toward a Theory of Stakeholder Identification and Salience:

Defining the Principle of Who and What Really Counts». *The Academy of Management Review* 22 (4): 853. <https://doi.org/10.2307/259247>.

Russo Spena, Tiziana, e Francesco Bifulco, a c. di. 2021. *Digital Transformation in the Cultural Heritage Sector: Challenges to Marketing in the New Digital Era*. Contributions to Management Science. Cham, Switzerland: Springer. <https://doi.org/10.1007/978-3-030-63376-9>.

Schiama, Giovanni, Eva Schettini, e Francesco Santarsiero. 2021. «How Wise Companies Drive Digital Transformation». *Journal of Open Innovation: Technology, Market, and Complexity* 7 (2): 122. <https://doi.org/10.3390/joitmc7020122>.

Wohlin, Claes. 2014. «Guidelines for Snowballing in Systematic Literature Studies and a Replication in Software Engineering». In *Proceedings of the 18th International Conference on Evaluation and Assessment in Software Engineering - EASE '14*, 1–10. London, England, United Kingdom: ACM Press. <https://doi.org/10.1145/2601248.2601268>.

Yin, Robert K. 1984. *Case study research: design and methods*. Applied social research methods series, v. 5. Beverly Hills, Calif: Sage Publications.