

Museum Social Media Communication and Program Service Revenues
Evidence from Italy

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Abstract

Social media are valuable tools that have deeply changed the way museums get in touch with their visitors and, more in general, with stakeholders. Nowadays, in Italy, most museums use marketing and social media strategies to promote their cultural offer and communicate and engage with their actual and/or potential visitors. Considering social media communication, some Italian museums started to make use of it only after the first lockdown in March 2020, while others had already been grasping the opportunity offered by such media for some years. The phenomenon is spread all over the world, and different papers have analyzed the role of social media in attracting a greater number of museum visitors. Yet, very little research has been conducted to investigate the role of investment of museums in Marketing & promotion, expenses that include social media communication, in generating and increasing service program revenues and or grants and contributions.

This paper attempts to fill the gap.

Key words: Museums; program service revenues; social media; communication.

Introduction and objectives

Museums try to keep up with the challenges of the changing and turbulent environment and have started to use social media in the past few years. Chung et al. (2014) identified three marketing applications for which social media is used: building awareness, engagement with the community, and networking. What about program service revenues?

The aim of this paper is to analyze, through a quantitative analysis, how the investment in social media communication, encompassed in Marketing & promotion expenses, ensure an improvement of program service revenues.

Current existing studies are more focused on analyzing how museums can generate and measure social media engagement, rather than understanding the topic from an economic point of view (except, for instance, Suh, 2020).

We tried to find some answers in terms of checking whether a direct connection exists between the result of Service program revenue and investments in Marketing & promotion – that is the budget item that includes communication expenses, the number of visitors to the museums, and contributions and grants.

To answer these questions, we conducted research on small sample of 3 Italian museums: Museo Egizio of Turin (ancient Egyptian culture) (from now on Egizio), Museo Archeologico Nazionale of Taranto (archeological museum) (from now on MArTA) and Museo delle scienze of Trento (science museum) (from now on MuSe). The reasons why we chose this mix of museums are manifold: they have implemented a communication department in their organizational model since at least 2016; there is a variety of social networks used by these museums, which indicates efforts in communication and an ongoing interest for personalizing the relationship with visitors through social media.

The quantitative analysis, carried out on program service revenues, refer to the years 2016-2019 and the data was collected from the selected museums' Annual reports. The paper is structured, as follows: in the first section review the specialized literature about the impact of

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social media in museum environment. In the second section we discuss the research questions, and we present the methodology used in the quantitative analysis of the data collected. The final part is dedicated to discussing results and to outlining conclusions.

Literature review

Nowadays, most museums are aware of the new powerful tools to engage audiences and to get in touch with the real world, and they are moving toward marketing (Kotler, Kotler, 2000) and social media communication. Social media are valuable tools (Kaplan, Haenlein, 2010; Lovejoy et al., 2012) which help museums to cultivate the relationship with a wide range of stakeholders. Indeed, the importance of social media in the communication strategy of museums is linked to the ability of these tools to involve wider audience and more efficiently than traditional ones (Esposito, 2016). The interactivity, that characterizes such media, plays a decisive role in the development of relationships with visitors, donors, and other stakeholders (Jo, Kim, 2003).

Social media communication allows to disseminate posted contents, generate online and offline engagement, as well as build a two-way-relationship with social media users (Kietzmann et al., 2011).

Furthermore, it contributes to the production of synergies between different tools, thanks to the simultaneous release of the same message on multiple channels such Facebook, Twitter, and Instagram (Saxton, Wang, 2013). Although social media is still sometimes perceived with skepticism in museum context, it has nonetheless become a key factor in the way cultural organizations communicate, as they are able to support the marketing of museums. Many museums have started using different forms of social media, as this strategy allows them to move their activities into the digital realm while also reinforcing their brand and reputation (Agostino et al., 2020; Amanatidis, et al. 2020). Social media communication allows personalization and participation via social media (Holdgaard, Klastrop, 2014; Budge, Burness, 2018) and helps museums cope with the most recent issues connected to the Covid-19 pandemic (Esposito et al., 2020; Agostino, et al. 2020; Christiansen, 2020).

According to Romolini et al. (2020), despite the increasing use of social media and the popularity of Italian museums in social media, the level of visitor's engagement still remains low.

Marketing and social media efforts are instead crucial from a fundraising point of view. Their potential is high. In fact, thanks to the widespread propensity for online purchases and online payment methods, a wide number of people perceive social media as the easiest and most comfortable way to donate (Nageswarakurukkal et al., 2020). Furthermore, on the other side, museums can exploit social media to generate involvement, as they are a suitable tool for sharing the commitment of sponsors, donors, volunteers, and members, and activating identification mechanisms that can influence other people in order to contribute to museum causes. Indeed, museums need grant funding to survive the next post-pandemic period, to cope with a longer-term reduction in visitor numbers, philanthropy, national and international collaborations, and other sources of income (Esposito et al., 2020).

Research Questions

Starting from those premises, the paper aims at pointing how the investment of museums in social media communication ensures an improvement of service program revenues, in the number of followers, and in the rating of museums on social media.

In this perspective the following research questions emerged:

- RQ.1: How is marketing & promotion expense affecting Program Service Revenues, also considering the effect of Contributions and Grants, as well as the number of Visitors, who are paying for single tickets and who can be engaged thanks to social media?

Sample and the engagement thanks to social media

To address research in this area and to have a broader view of the phenomenon, this paper seeks to analyze three Italian museums who are representative of different governance models and have implemented a structured marketing & communication department for many years: Egizio with a marketing & communication department since 2014, MARTA with a marketing & communication department since 2016, MuSe with a marketing & communication department since 2013.

To describe the sample considering their social media performance, we collected data from Facebook, Twitter, Instagram and TripAdvisor in 2018, 2020, and 2021. All the information

was collected in the official museums' social profiles. The information collected concerned: followers for Facebook, Twitter, and Instagram; rating and reviews for TripAdvisor (Table 1).

Table 1. Egizio, MArTA, MuSe: number of followers and the rating in in 2018, 2020, 2021

		Egizio	MArTa	MuSe
Facebook	Followers 2018*	177,502	na	82,548
	Followers 2020**	235,952	39,390	101,813
	Followers 2021***	243,211	46,249	107,154
	var. 18/20	33%	na	23%
	var. 20/21	3%	17%	5%
Twitter	Followers 2018*	24,800	na	13,100
	Followers 2020**	30,859	4,296	14,082
	Followers 2021***	31,976	4,524	14,119
	var. 18/20	24%	nd	7%
	var. 20/21	4%	5%	0%
Instagram	Followers 2018*	31,936	na	12,913
	Followers 2020**	76,075	12,894	20,617
	Followers 2021***	86,000	16,100	23,400
	var. 18/20	138%	na	60%
	var. 20/21	13%	25%	13%
Trip Advisor	Rating*	4,5	-	4,5
	Reviews*	19,427	-	4,322
	Rating**	4,5	4,5	4,5
	Reviews **	24,194	1,218	5,217
	Rating***	4,5	4,5	4,5
	Reviews ***	24,373	1,242	5,251
	var. 18/20	25%	na	21%
	var. 20/21	1%	2%	1%

Note: * data collected in 1.6.2018; ** data collected in 30.12.2020; *** data collected in 7.10.2021; na: not available

The data shows a positive trend on social media performance for all the museums analyzed; especially for the Egizio museum, social media performance is very positive: for example, the variation on its Instagram channel between 2018 and 2020 shows a + 138%.

Considering the best performer social media, Instagram obtains the higher performances in both of the variations (18/20 and 20/21) considered. In this channel, considering the variation between 20-21, MArTA museum boasts a higher performance than the other two museums.

With respect to the rating and reviews, we can say that all the museums considered have maintained the same high rating on TripAdvisor (4.5). The reviews increased significantly between 2018 and 2020, while in the last year the variation is residual. This may be due to a possible maturity of this social media or to the obvious inability of users to visit museums due to the Covid-19 pandemic and therefore to leave a review. It will be possible to assess this only in the next years.

Method

To answer the research question, we decided to do a multiple regression analysis with JUMP Statistics and SPSS software (Fit Least Squares) with program service revenue as dependent variable and contributions and grants, marketing and promotion expense and visitors' data as independent variables.

If data about social media show a positive trend, we did not include these data in the multiple regression analysis, as this is strictly concerning economic performances on the supply side of this sample. Nevertheless, the efforts of the social media engagement are evident in the Marketing and Promotion Expense. Marketing Officers usually implement social media marketing, and this time-consuming strategy can be summarized in the cost of their departments, the Marketing and Promotion Expense.

Firstly, we collected data from reports of Egizio, MArTA and MuSe museums from 2016 to 2019. As a beginning date we chose the year 2016, when marketing departments were fully

implemented; as an ending date we considered the year 2019, before the pandemic, which was an extraordinary and impacting event for economic performance. Above all, we collected data from mission reports and from accounting data to visitors' flows.

The editing of reports has completely changed over the past decade: photos have been added together with stakeholders', impact, edutainment, sustainability analysis. During the very last few years, data about social media performances have been integrated and commented as regards different media (from Facebook to Instagram) and next to results of the main website. Program service revenue includes ticket sales for different audiences and a widespread range of activities: from visits to edutainment, from research to conferences, meetings, and events. Rents of rooms and other income, they can be here included. Program service revenue only concerns commercial activities, and it is not accounting line of the performance of fundraising. As a consequence, it is a share of all revenues of this sample, whose marketing teams have matured since 2013.

Contributions and Grants concern the economic performance of fundraising, and this fundraising refers to public grants, contributions from grant-makers like foundations, sponsorships, donations, international grants like the European Union and any range of philanthropy these museums can target thanks to their fundraising teams.

As already written, social media communication can have a proxy accountability in the line of Marketing and Promotion Expense, though some other expenses might be evidence of this strategy and this activity: website implementation and innovation, telephone, creation of brands, photo and video making, etc. Social media marketing is also a matter of time and efforts, which are not always accountable. This consideration is very important for multiple regression. Here investigated Marketing & Promotion Expense strictly refers to accounting lines of this name with every effort, which can or cannot be estimated in these lines.

Visitors are here investigated for data, which are available for the whole sample and concern the attendance, who is paying for single tickets. Groups like schools, families and card-payers – cards for networked museums in bundles – they were not detected for all museums. Visitors are, as a consequence, a share of attendance.

Findings

Considering the research question, here follow equations of multiple regression (r square 1 for all regressions) for corresponding and available data:

- Egizio

$$\text{Program Service Revenues} = 263300045 - 304.9197\text{Visitors} + 8.3094461\text{Marketing\&Promotion} + 0.6452653\text{Contributions\&Grants}$$

Program Service Revenue of Egizio Museum is positively correlated with Marketing Expense and Contributions and grants, this showing the ability of the governance to connect offline and online promotion for multiple activities from exhibitions to edutainment, from multimedia gaming to research and impacts on the international scenario of Egyptology, though Marketing & Promotion is only a proxy of all efforts and expenses for a multimedia. The negative correlation with visitors' flows is showing how much revenues can concern shares of activities, which are not only entering the collection and exhibitions but also having research, multimedia entertainment, rents of rooms, events organization, and engagement of multiple and different audiences from schools to tourists, who pay for bundles which are not always detected in single-ticket payers.

- MArTA

$$\text{Program Service Revenue} = 922011.58 - 10.86014\text{Visitors} + 1.1487332\text{Marketing\&Promotion} + 0.1122527\text{Contributions\&Grants}$$

As commented for Egizio Museums, Program Service Revenue of MArTA is positively correlated with Marketing Expense and Contributions and Grants, these confirming skills of the governance to connect offline and online promotion for multiple activities from collections to exhibitions (inclusive of contemporary arts), from multimedia gaming to research and impacts on the international scenario of archeology renaissance. The negative correlation with visitors' flows is showing how much revenues can concern activities, which are not only entering the collection and exhibitions with different multimedia storytelling and enabling ancillary activities (like the virtual enabled way of life of past times) but also research, multimedia entertainment, international events with engagement of multiple and different audiences and the support of EU funds. Program Service Revenues can be affected by visitors who pay for grouping activities, but these data were not recovered for the sample in the investigated period.

- MuSe

$$\text{Program Service Revenue} = -6454000 + 14.733935 \text{Visitors} - 28.52353 \text{Marketing \& Promotion} + 0.9434415 \text{Contributions \& Grants}$$

As commented for Egizio and MARTA, Program Service Revenue of MuSe is positively correlated with Contributions and Grants. The equation shows a positive correlation with visitors' flows and a negative correlation with Marketing & Promotion, this correlation as evidence that promotion is not only a matter of monetary account but also efforts, which are not fully accountable, still, and constantly in order to increase visitors' flows. MuSe museum had decreasing budget for marketing and promotion during the investigated period. This museum profited, anyway, by consistent public grants from public administrations according to the public status of organization of Trento province (*Ente strumentale della provincia autonoma di Trento*). As a consequence, marketing and promotion affect revenues differently in comparison with the other museums, as public stakeholders are anyway granting increasing contributions, so that the museum is developing promotion as an ancillary and self-strengthening strategy next to the certainty of public resources.

Considering all the three museums and the research question, we can say that Multiple Regression (Fit Least Squares) was reliable for the whole sample with 1 for R, R-square and R-square adjusted and it was reliable for collinearity tolerance, too. The ANOVA resulted in a sign. for 0.000.

Discussion

The expense for marketing and promotion is positively affecting the program service revenue in Egizio and MArTA. For MuSe, the public status is granting resources and the magnitude of the expense is not increasing during the investigated period, so that the regression results in a negative coefficient.

As long as the museum echo, label and proposition are signaled in sponsors' and grant-makers' communication, this will attract the paying attendance. This will result in a positive correlation between program service revenue and contributions plus grants. The highest coefficient +0.94 is for MuSe, whose fundraising can profit by public funding and sponsorships, though public funding is prevailing according to the particular status.

The analysis was restricted to visitors who are paying for single entrance. These data were fully detected in all reports. This correlation is positive for MuSe and negative for Egizio and MArTA for 2016-2019. It can be inferred that this share of attendance is only one share of visitors' universe of Egizio and MArTA, whose marketing officers have increased targeting of schools, cards holders, researchers, and other groups whose payments are not here detected for the lack of data.

Conclusion

Our investigation shows that Program Service Revenue is positively correlated with Marketing Expense and Contributions and grants, highlighting that, in these museums, Contributions and Grants have been increasing with Program Service Revenue, so that administrations, sponsors, grant-making foundations, philanthropists, and international organizations like the EU have been constantly supporting organizations, whose reputation feedback is for sure like increasing visitors' flows.

Considering social media communication, we should take into account that the pandemic crisis is transforming museum sector, boosting museums to implement strategies of social media marketing and communication to stay in touch with their audience. This factor could partially explain the very positive trend for all the museums analyzed. Nevertheless, museum governances should consider that followers are not just a flagship but an opportunity to obtain a more adequate economic return.

For museums, therefore, social media communication is a crucial means of attracting visitors. Marketing and Social media communication expenses allow museums to communicate and promote their activities and, at the same time, to grasp the opportunity to create a community with which interacting directly. This means having the chance to know the preferences and tastes of the audience and to offer them satisfying services. The above could turn into an increase in visitors, and consequently, in program service revenue.

In addition, Marketing and Social media communication impact on the museum fundraising activity, because they, on the one hand, enable museums to easily reach their follower communities, that can contribute directly and indirectly to the success of the fundraising; on the other, by developing and reinforcing museum brand, and reputation, they foster grant-making partnership and sponsorship.

Among limits of this first analysis, the sample concerns a small group of museums, whose governance was lately and deeply evolving to social media marketing. Nevertheless, data were not fully detectable for here investigated and accounting years. The proxy of Marketing and Promotion Expense should be investigated for a longer period, next to comprehensive data for every social media profile and activity.

References

- Agostino D., Arnaboldi M., Diaz L., Lema M., Riva P. (2020). Exploring the Importance of Facebook Post Writing as a Museum Engagement Tool, *Proceedings of the 7th European Conference on Social Media 2020*, Cyprus 2-3 July, 2020.
- Amanatidis D., Mylona I., Mamalis S., Kamenidou I. (2020). Social media for cultural communication: A critical investigation of museums' Instagram practices, *Journal of Tourism, Heritage & Services Marketing*, 6 (2), pp. 38-44.
- Budge K., Burness A. (2018). Museum objects and Instagram: agency and communication in digital engagement, *Continuum*, 32(2), pp. 137-150.
- Christiansen K. (2020). The Met and the COVID crisis, *Museum Management and Curatorship*, 35(3), pp. 221-224.
- Esposito A. (2016). Web e social media per il fundraising, in A. Besana, A. Esposito (eds.), *Economia, marketing e comunicazione per il nonprofit*, pp. 150-150, Milano: Franco Angeli.
- Esposito A., Besana A., Vannini M.C., Fisichella C. (2020). Museums' management innovation between crisis and opportunities, *Proceedings of SIMA – Sinergie Management Conference, GRAND CHALLENGES: Companies and Universities working for a better society*, 7-8 September 2020 – Pisa.
- Esposito A., Besana A., Vannini M.C., Fisichella C. (2021). COVID-19 effects in museum management. Insight about the Italian context, *Proceedings of the XX International e Marketing Trends Conferenc*, Venice, 14-16 January 2021.
- Holdgaard N., Klastrup L. (2014). Between control and creativity: challenging co-creation and social media use in a museum context, *Digital Creativity*, 25(3), pp.190–202.

- Jo S., Kim Y. (2003), The effect of web characteristics on relationship building, *Journal of Public Relations Research*, 15 (3), pp. 199-223.
- Kaplan A.M., Haenlein M., (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, 53(1), pp. 59–68.
- Kietzmann J.H., Hermkens K., McCarthy I.P., Silvestre B.R. (2011). *Social media? Get serious! Understanding the functional building blocks of social media*, *Business Horizons*, 54(3), pp. 241-251.
- Kotler N., Kotler P. (2000). Can museums be all things to all people? Missions, goals, and marketing's role, *Museum Management and Curatorship*, 18(3), pp. 271-287.
- Lovejoy K., Waters R. D., Saxton G. D. (2012). Engaging stakeholders through Twitter: How nonprofit organizations are getting more out of 140 characters or less, in *Public Relations Review*, 38 (2), pp. 313-318.
- Nageswarakurukkal K., Goncalves P., Moshtari,M. (2020). Improving fundraising efficiency in small and medium sized non-profit organizations using online solutions, *Journal of Nonprofit & Public Sector Marketing*, 32(3), pp. 286-311.
- Romolini, A., Fissi, S., Gori, E. (2020). Visitors'engagement and social media in museums: Evidence from Italy. *International Journal of Digital Culture and Electronic Tourism*, 3(1), pp. 36–53. <https://doi.org/10.1504/IJDCET.2020>.
- Saxton G. D., Wang L. (2013). The social network effect: The determinants of giving through social media, *Nonprofit and Voluntary Sector Quarterly*, 43 (5), pp. 850-868.
- Saxton G. D., Waters R. D. (2014). What do stakeholders like on Facebook? Examining public reactions to nonprofit organizations' informational, promotional, and community-building messages, *Journal of Public Relations Research*, 26 (3), pp. 280-299.
- Suh J. (2020). Revenue Sources Matter to Nonprofit Communication? An Examination of Museum Communication and Social Media Engagement, *Journal of Nonprofit & Public Sector Marketing*, DOI: [10.1080/10495142.2020.1865231](https://doi.org/10.1080/10495142.2020.1865231)