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The Olympic Games of Rio de Janeiro: Project – related events and their political, aesthetical, economic and technological impacts on the main project actors

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THE OLYMPIC GAMES OF RIO DE JANEIRO: PROJECT – RELATED EVENTS AND THEIR POLITICAL, AESTHETICAL, ECONOMIC AND TECHNOLOGICAL IMPACTS ON THE MAIN PROJECT ACTORS.

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ABSTRACT

This study is concerned on Rio 2016 megaproject management undertaken by the principal project actors: The International Olympic Committee (IOC), the Organising Committee of the Olympic Games (OCOG) and the Brazilian Government. Firstly, an introduction into megaprojects precedes the explanation of two intrinsically linked concepts, Complexity and Risk Management. Only after that fundamental portrayal two widely adopted theories in Megaproject research will be reviewed, namely Stakeholder theory and Institutional theory. In light of the literature and by means of a content analysis to local and international newspapers articles, the main project related events that occurred shortly before, during and after the Olympic Games were extracted and categorized. In total, twelve project related events were identified. The broader project management picture related to those issue is supported by a brief description of Rio 2016´s project governance. Finally, the paper finishes with the appeal to widen up the academic research on the complexity of the Olympic Games as there is a lacking explanatory and evaluative capability of the aforementioned theories in assessing the main conceptual undertakings of such a particular megaproject. After all, the unexpected issues that the abovementioned actors had to manage are best described by four impacting megaproject dimensions: The political impact, the aesthetic impact, the economic impact and the technological impact.

Keywords: Megaprojects; Olympic games; Complexity; Risk management; Stakeholder Theory; Institutional Theory;

ABSTRATO

Este estudo tem como foco a gestão do megaprojeto Rio 2016 realizada pelos principais atores do projeto: o Comitê Olímpico Internacional, o Comitê Organizador dos Jogos Olímpicos e o Governo Brasileiro. Em primeiro lugar, uma introdução em megaprojectos precede a explicação de dois conceitos intrinsecamente ligados, Complexidade e Gestão de Risco. Somente após esse retrato fundamental, duas teorias extensamente adotadas na pesquisa do megaprojeto serão revistas: Teoria do Stakeholder e Teoria Institucional. Segue, em luz da literatura e por meio de uma análise de conteúdo, uma coleta de artigos de jornais locais e internacionais sobre os principais eventos relacionados ao projeto, ocorridos pouco antes, durante e depois dos Jogos Olímpicos. No total, foram identificados doze eventos relacionados ao projeto. O quadro mais amplo de gerenciamento deste projeto é apoiado por uma breve descrição da governança do projeto Rio 2016. Por fim, o trabalho conclui com o apelo de ampliar a pesquisa académica sobre a complexidade dos Jogos Olímpicos, pois há uma falta de capacidade explicativa para uma avaliação dos principais empreendimentos conceituais deste megaprojeto. Isto devido ao motivo de os eventos gerenciados pelos atores terem acabado por ser explicados por quatro dimensões do megaprojeto: O impacto político, o impacto estético, o impacto económico e o impacto tecnológico.

Palavras-chave: Megaprojetos; Jogos Olímpicos; Complexidade; Gestão de Risco; Teoria do Stakeholder; Teoria Institucional;

DEDICATION PAGE

This thesis is dedicated to my parents who taught me to give my best on every possible occasion, as merit and luck are often revealed in the most unexpected moments of our lives. Whilst always remembering all the highs and lows we have been through together, I thank you for your endless love, support and encouragement.

There is no doubt that it is around the family and the home that all the greatest virtues, the most dominating virtues of humans, are created, strengthened and maintained. – Winston Churchill

It is also dedicated to my long-time friends Filipe, Frederico and Baltazar, which most likely gave up on reading and therefore are never going to reach this page.

Friendship is the hardest thing in the world to explain. It's not something you learn in school. But if you haven't learnt the meaning of friendship, you really haven't learned anything. – Muhammad Ali

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Last but not least important, I place on record my appreciation to all who, directly or indirectly, supported me. Especially to all my new friendships (regrettably, I cannot acknowledge them all by name) in this truly marvellous city of Rio de Janeiro, a home that took a big place in my heart over the last year. I would like to single out Matheus, Vitor, Bernardo, and Augusto!

Thank you

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Aiba	Amateur International Boxing Association
ANJ	Associação Nacional de Jornais
ANOC	Association of Olympic Committees
APO	Autoridade Pública Olímpica
ARD	Arbeitsgemeinschaft der öffentlich-rechtlichen Rundfunkanstalten der Bundesrepublik Deutschland
BRIC	Brazil, Russia, India, China
BRT	Bus Rapid Transit System
CA	Content analysis
Cas	Court of Arbitration for Sport
CISM	Conseil International du Sport Militaire
EGOS´ 2017	European Group for Organizational Studies 2017
EURAM 2017	The European Academy of Management 2017
FIFA	Fédération Internationale de Football Association
IAAF	International Association of Athletics Federations
IOC	International Olympic Committee
IRNOP	The International Research Network on Organizing by Projects
JOC	Japanese Olympic Committee
LRV or VLT	Light Rail Vehicle
NWR	Newspaper Web Ranking
OCOG	Organising Committee of the Olympic Games
OCI	Olympic Council of Ireland
PAC	Plan for Growth Acceleration
PHEIC	Public Health Emergency of International Concern
PM	Project Management
PMBOK	Project Management Body of Knowledge
PMI	Project Management Institute
RMC	Rio Media Centre
RusAF	Russian Athletics Federation
SM	Stakeholder management
USA	United States of America
USOC	The United States Olympic Committee
VUA	Venue User Agreement
Wada	World Anti-Doping Agency
WHO	World Health Organization

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1. INTRODUCTION TO THE RESEARCH TOPIC

The Olympic Games (commonly referred as The Olympics) are the world's largest international athletic competition held every four years in various locations.

According to historical archives, the ancient Olympic Games can be traced back to 776 BC until 393 C.E. Exclusive to Greek men and dedicated over a thousand years for the Olympian gods, the Olympics rose to such popularity that fighting factions took breaks in order to allow their soldiers recover for the competition staged on the ancient fields of Olympia in Greece. Olympic medallists were not only greatly admired but also immortalized in poems and statues. However, the Games progressively lost popularity with the emergence of gladiatorial combats from the Roman Empire and were later abolished by decreed as pagan festivals during the Christian era (Olympic Games History, 2017).

According to the New World Encyclopedia (2016), the foundation of the International Olympic Committee (IOC) in 1894 is credited to Baron Pierre de Coubertin, who had a particular interest in reviving the Olympic Games. At hand, the 79 delegates from nine countries unanimously approved his proposal and decided that the first IOC´s Olympic Games would take place two years later in Athens. Small by modern standards, that event accounted for 241 athletes from 14 nations competing across nine different sports: athletics, cycling, fencing, gymnastics, weightlifting, shooting, swimming, tennis, and wrestling. All the competitors were men, and a few of them were tourists who stumbled upon the event and were allowed to sign up. Nonetheless, public opinion was so ecstatic that Greek officials proposed to monopolize the Olympics in Greece. The IOC rejected that request and the next Olympic Games took place four years later in Paris, where women made their Olympic debut in tennis and golf.

Since the revival of the Olympics, they were strongly linked to politics and have been staged every fourth year except during World War I and World War II (1916, 1940, 1944). Despite being affected by several political disruptions and nationalistic ideologies, the modern Games kept growing in all possible dimensions. In stark contrast with the Olympic Games of Antiquity, each edition since 1896 became secular, hosted in a different location and open to all athletes from all over the world (The Olympic Museum Educational and Cultural Services, 2013). With that in mind, the universality of the modern Olympic Games was assured in Stockholm 1912, marked by the first ever presence of national delegations from all five continents. Since

then, participation took extraordinary levels: More than 200 years later the Summer Olympics returned to Athens, with more than 11,000 athletes from 202 competing countries. What was once a one to five day competition now enjoys a duration of at least two weeks. In fact, due to the increasing size of both Summer and Winter Games, the latter were shifted to a different schedule after 1992.

In October 2009, Rio de Janeiro was officialised as the hosting city of the XXXI Olympiad. The once Brazilian capital was set to stage the first Olympic Games on the continent of South America, a continent with a population of 400 million of which 180 million are young people (Rio2016 Candidate City, 2009). Determined in leaving an internationally acknowledged legacy, Rio 2016 was a project deeply linked to the wider long-term planning strategy of the city. It included infrastructure upgrades, new sport venues, the regeneration of the port area as well as security and transport improvements. In favourable economic conditions during 2009, the world's most prestigious sporting event enjoyed full political and financial backing from the three levels of the Government of Brazil—Federal, State and City (Rio2016 Candidate City, 2009a).

Despite the financial crisis of 2008, a relatively robust market economy led to global recognition on the growing economic power of the country. Brazil was quickly considered as a major developing county, along with other BRIC nations such as Russia, India and China. Domestic income levels were increasing through improved living standards, both reflected (Rio2016 Candidate City, 2009a) by income per capita raises (15% increase from 1997 to 2007) and average GINI Index improvements (0.7 GINI points per year from 2001 to 2007). It seemed that Brazil had returned to sustainable economic development with controlled inflation and stable exchange rates. The scope of Rio 2016, which was aligned with the country´s development strategies, made it both economically feasible and attractive. Through public-private partnerships, the 37 billion dollar heavy project was financed 60% by private capital. Public funds allocated to Rio 2016 would benefit from the USD 240 billion Federal Plan for Growth Acceleration (PAC) (Rio2016 Candidate City, 2009a). This high social impact programme provides nationwide investments in infrastructure, tax breaks and credit facilities. It involves thousands of public construction projects around the country such as dams, railways, ports, and roads. Budgets, with contingency levels up to 15% of total expenditures, had been prepared on the economic conditions in 2008 considering also planned inflation and foreign currency fluctuations towards 2016 (Rio2016 Candidate City, 2009a). A detailed post asset plan indicated the post games use,

ownership and financing of permanent competition venues (Rio2016 Candidate City, 2009b). The sports facilities were located across the city's four major zones: Barra da Tijuca, Copacabana, Maracanã and Deodoro. Most of those venues were already operational, recently developed or renovated for the Pan-American Games, According to the Rio de Janeiro´s bid committee, eight existing venues required no permanent works, ten demanded reforms, while eight new permanent and seven temporary sites would be built (IOC, 2008). Moreover, projects in the area of mobility predicted substantial improvements in transportation, reaching then 63% of the population compared to the initial 18% (Bach, 2016). This achievement was obtained mainly due to construction and expansion of the Metro Line Four, the Bus Rapid Transit System (BRT) and the Light Rail Vehicle (LRV or VLT). As an integrated part of Rio de Janeiro´s development plans, all of those projects took into account the city's scenery and the strategic concept of bringing the Games to the whole community.

On a political level all major Brazilian parties including major opposition pledged complete support for Rio´s bid, as well as the private sectors of the industry. All guarantees required by the IOC were provided through signed letters from the highest authorities including the President of Brazil, the Governor of the State of Rio de Janeiro and the Mayor of the City of Rio de Janeiro. This support was mainly reflected through several legislative adjustments and concessions made in order to host the project. Binding commitments would not be impacted by elections, which take place on a four year cycle across all levels of the government. Moreover, opinion polls during the bidding phase showed convincing support of the local community about the project: By 2008, 82% of respondents in the state of Rio supported the Rio 2016 Bid (Rio2016 Candidate City, 2009).

Rio 2016 culminated a decade of several mega events (Table 1). For project teams, all these events enabled a great amount of knowledge and technical expertise to be developed. Shortlisted as the underdog compared to other higher – profile applicants such as Chicago, Madrid and Tokyo, the favourable announcement for Rio de Janeiro´s project came quite surprisingly (BBC, 2008). In fact, former bids to host the games of 1956, 2004 and 2012 had been rejected by the International Olympic Committee (IOC, 2008). The Olympic bid evaluation expressed particular concerns in security & safety, while appraising government support, legal issues and public opinion of the city (IOC, 2008).

In light of all the embracing euphoria placed around the Olympic Games of Rio de Janeiro, the main project actors were confident, optimistic and committed to the delivery of this project. Nothing seemed to hinder the world's largest stage of sports, and at the same time one of the most internationally exposed projects set to be realized seven years later. However, the project environment of 2016 changed. Unpredictable and obstacles had to be faced by either the IOC, the Brazilian government or the local project team. Still, media exposure kept at record breaking levels. From the Rio Media Centre (RMC), daily news on the Olympic project were reported by almost 7.000 accredited journalists from 102 countries (Brasil2016, 2016). The nature of those articles were diverse, contemplating sports related news to concrete project management issues. In the light of megaproject research and by the gathering of domestic and international journal articles, this paper analyses the main project related occurrences during the crucial executional phase of the project, the realization of the Olympic Games. Taking into account the existing context of the Olympic Games in 2016, how did the main project actors react to the mostly unpredictable events reported by the local and international media?

Table 1 – Rio de Janeiro´s mega events in the last decade

World Cup in 2014
Rio+20 summit in 2012
CISM Military World Games in 2011
Pan-American Games in 2007

(Gaffney, 2010)

1.1 RESEARCH OBJECTIVES

This study is concerned on Rio 2016 megaproject management undertaken by the principal project actors: The International Olympic Committee (IOC), the Organising Committee of the Olympic Games (OCOG) and the Brazilian Government. Firstly, an introduction into megaprojects precedes the explanation of two intrinsically linked concepts, Complexity and Risk Management. Only after that fundamental portrayal two widely adopted theories in Megaproject research will be reviewed, namely Stakeholder theory and Institutional theory. In light of the literature and by means of a content analysis to local and international newspapers articles, the main project related events that occurred shortly before, during and after the Olympic Games were extracted and categorized. The broader project management picture related to those issue is supported by a brief description of Rio 2016´s project governance. Finally, the paper finishes with the appeal to widen up the academic research on the complexity of the Olympic Games as there is a lacking explanatory and evaluative capability of the aforementioned theories in assessing the main conceptual undertakings of such a particular megaproject. After all, the unexpected issues that the abovementioned actors had to manage are best described by four defining megaproject dimensions. More specifically, objectives of this paper address the following aims and questions:

- **To introduce the academic literature on megaproject management**
    - Review on Megaprojects, Complexity, Risk Management, Stakeholder Theory and Institutional Theory

- **To depict the project management related issues from the media on Rio 2016**
    - Which project related events of the Olympics were highlighted by local and international media from May 2016 to November 2016?

- **To understand the project governance of the 2016 Olympic Games in Rio de Janeiro**
    - Which were the principal project actors of Rio 2016?

- **To analyse the principal events occurred during the realization of the Olympic Games in light of megaproject theory**
    - Which Project Management constructs can better assess the main conceptual undertakings of the project execution?

1.2 RELEVANCE OF THE TOPIC

1.2.1 Academic significance

In the field of project management research, the European Group for Organizational Studies 2017 (EGOS´ 2017) recent call for short papers depicts the actual situation as this: "Projects – like other forms of temporary organizations – are characterized by intentionally finite time frames that enable firms and other individual or corporate actors to organize in a flexible and ad-hoc manner (Sydow, Lindkvist & DeFillippi, 2004; Jones & Lichtenstein, 2008; Kenis, Janowicz-Panjaitan & Cambré 2016; Bakker, DeFillippi, Schwab & Sydow, 2016). Despite the increased research by organization theorists (Bakker, 2010), (…) progress toward understanding the embeddedness of projects into organizational or wider institutional contexts is still limited. Frequently, projects are viewed as separate islands with little interaction with their environment. This is still a major weakness of current theorizing."

In fact, the intrinsic difficulty of bridging projects to the surrounding environments can be explained by the current understanding in the field of study: At all times, megaprojects embrace complexity, ambiguity, and uncertainty in turbulent environments. The often observable failure to deliver complying results in variables such as time, budget or value only indicate that the existing project management tools, concepts and techniques are not enough to deal with the complexity of today´s reality. On that concern, the practical world of project management seems to outpace its theoretical and academic counterpart. Whether refer ring to project-supported or project based organizations (Hobday, 2000; Lundin, Arvidsson, Brady, Eksted, Midler & Sydow; 2015), projects are run by formal organizations that need to navigate through complex environments with unsatisfactory implements. With that in mind, not only EGOS but also other management associations are pleading to open up for new eras of research. The European Academy of Management (EURAM 2017) especially welcomes papers that contribute to a better understanding on how theoretical knowledge on managing projects can better inform practice. In other words, it is said that only "(…) a small number of researchers have looked at more innovative approaches to improve the management and governance of these major and mega

projects. This topic calls for new research approaches to develop knowledge in managing and governing major and mega projects (…)".

The International Research Network on Organizing by Projects (IRNOP), a community of scholars and practitioners with a common passion for projects organizing in temporary organisations, even expands the lack of pioneering approaches to all modern project areas. Their scope of the announced call for papers "(…) is deliberately drawn widely, to encourage a range of submissions covering many topics and themes, including behavioural and process areas, tools and techniques and theoretical frameworks. Authors are encouraged to reach beyond usual boundaries of the project domain, and to embrace the innovative approaches to defining and developing our understanding of the modern project. Hosted by the Metropolitan College, the *Modern Projects: Mindsets, Toolsets, and Theoretical Frameworks* is the selected theme of the IRNOP 2017 conference that will be held from the 11th to the 14th June 2017.

Taken into account the call for papers from the diverse institutions aforementioned, research potential on the managing of projects is indisputably high. At the end of the day, academics seek answers that range from projects embeddedness on its wider context, to its governing forms and finally to the appeal for any sort of fresh thinking that enables a new view for future academic application. The scope of this particular paper tries to further fill, even if little, those long-lasting gaps in academic research. After all, megaprojects remains even more a promising domain particularly in developing countries without a significant research tradition (Hu, Chan, Le, Jin, 2013).

1.2.2 Practical significance on the market

Estimates on global infrastructure spending will be at USD 3.4 trillion per year 2013–2030, according to the McKinsey Global Institute (2013). Essentially delivered as large-scale projects in developing markets, such investments aim to forestall the GDP growth. The Economist (2008) calls it "the biggest investment boom in history." Understandably, megaproject management enjoyed renewed popularity among politicians, practitioners and academics. Hoping to position themselves as a strong player in times of globalisation, metropolitan cities of developing countries scale up infrastructure through heavy investments that are often only

accepted and put on fast track with the hosting of international sporting competitions (Kennedy, 2014). Indeed, ‘semi-peripheral’ countries are trying to hold to the pace of globalisation by progressively bidding for major international sporting events (Black & Van Der Westhuizen, 2004).

Still, Olympics or the FIFA World Cup are just mere examples of the worldwide aspiration for bigger projects. Their extraordinary pace in size, scope and complexity is mounting to unprecedented dimensions that seem to be the new standard. While a decade ago professionals agreed on the commonly accepted characteristic of megaprojects starting at 1$ billion, actual projects aim to multiply this value up to one hundred times. London´s 23$ billion investment programme in the expansion of their transportation system, as well as the recently finished 35$ billion Port Marvel project for the Rio 2016 Olympics, are becoming almost small considering other examples. Scheduled for completion in 2025, Dubai proceeds to build its 64$ billion heavy “Dubailand” project: With 278 square kilometres, it consists of theme parks, sports venues, eco-tourism, health facilities, science attractions, and hotels. It will also have the world's largest hotel with 6,500 rooms and a 10 million square foot mall. However, those values are still not at the zenith of megaprojects. India is demonstrating its enormous ambitions in infrastructure development through the Delhi-Mumbai Trade Corridor (DMIC), a $90 billion scheme to create 1,483 km railway track linking nine mega industrial zones from the north of the country to the south. With the project completion set for 2017, the cargo along this route is then projected to take 14 hours instead of the usual 14 days. Finally, Azerbaijan approved the 100$bn heavy “Khazar Islands” construction project, scheduled to be finished between 2020 and 2025. In sum, it consists of a city of 41 artificial islands that will spread 3,000 hectares over the Caspian Sea. At the same time, this city is expected to own the world’s tallest building, the Azerbaijan Tower.

Massive interventions as the ones described before play a pivotal role in the progress of a city or even a country. Otherwise unattainable objectives suddenly become achievable through the creation of a state of emergency and its consequent pooling of finances, expertise, and public awareness. However, reaching such a favourable point is synonym of a project process characterized by numerous, diverse and often opposing forces. Those pressures can arise internally or externally from local or international stakeholders, and can deeply influence the scope and the outcome of the project. Direct actions are required to meet complex, dynamic and often unforeseen project obstacles. This process is not facilitated through megaprojects´ large

resource commitments, long planning horizons and high levels of visibility, both public and within the industry. Rio de Janeiro was subject to intense international exposure reflected by the influx of tourists and journalists from all parts of the world. Rio 2016 was the most shared, clicked and commented event in history. With such a high level of reporting and public interest, the media naturally becomes powerful. Despite acting as an external stakeholder with no formal project authority (Aaltonen, 2011; Walker et al., 2008), the media can disturb or even kill the project (Ng et al., 2012). Moreover, project managers have to bear the increasing responsibility that lays on their shoulders as megaprojects´ capital expenditures are escalating. Lewis & Jens (1987) mentioned that "(…) in many cases, the financial health of the owner or contractors is tied directly to the successful completion of the project. Even such giants as the oil industry, utility companies and their major project contractors have found themselves in financial dire straits as a result of their involvement in mega-projects." Already thirty years ago and in times of "small" megaprojects, both authors predicted a rise of complexity within megaprojects but also claimed for a climate of complete honesty and integrity between the project team and its stakeholders. Until now, the necessity to adapt the behaviour of managers in those domains keeps unchanged. As Flyvberg (2014a) stated, large sums of money involved in megaprojects turn out to prosper optimism bias, as well as principal-agent problems and rent-seeking behaviours.

Conclusively, practical cases on recent megaprojects should be a priority in order to help the cognitive limitation of today´s managers in such massive interventions because - then, now and in the future – megaprojects will only turn out as a success if we learn to systematically extract valuable insights between such types of projects.

1.2.3 Personal significance for the author

Megaprojects and their very nature always attracted my attention due to their long time reputation and heritage as potential catalysts for uncontrollable dynamics (Grabher & Thiel, 2015). In fact, this captivation lured myself to jobs in big international companies such as Siemens in 2013 and Volkswagen in 2015. In the first case, I took part in the whopping process of transforming already existing diesel to new electrified engines for a Scandinavian city´s entire bus fleet. In times of global warming, such a pioneering and innovative plan showed me the

importance of undertaking projects that are risky but at the same time tremendously satisfying due to their significant contribution for the greater good. In the latter occasion, I operated in a project team planning the worldwide launch of the Volkswagen Jetta, a car manufactured in Brazil, India and Russia. The aforementioned team acted as the coordinating part between the three plants´ functional areas of production, sales & marketing, finance, procurement and research & development. I enjoyed the particular challenge of conciliating cross cultural perceptions and inputs on one particular megaproject, learning that to work for the same purpose was not a synonym for working into the same direction. Thus, not only the technical and logistical challenge of such a project fascinated me, but also the necessity for human sensitivity from today´s global managers. While both experiences were at the early planning phase of those projects, their unique characteristics and unforeseen events already showed up and demanded considerable managerial flexibility and determination.

Returning to the academic track and determined to finish my master program abroad, I saw an opportunity to experience a megaproject close by. This was of particular interest to me because Portugal´s minor economy did not enable any recent large-scale commitments. In fact, pending megaprojects similar to the construction of a new Lisbon airport or of a new rapid railway line connecting Portugal to Spain got suspended. Seamlessly, Rio de Janeiro would not only suit to my active outdoor lifestyle, but it would also host the world's greatest stage of sport. I am convinced that living in the city prior, during and after the Olympic Games is a positive, distinctive and crucial aspect to take into account when reading this research. With no doubt, it is a motivation for any researcher to analyse a project executed in front of his door. As such, I immersed into the project environment and experienced the swarm of negative headlines about the corrupt political spectrum, the body parts washing up near the start of the triathlon on Copacabana beach, hospital shootouts, athletes being robbed and striking police officers.

As an appealed reader up to this date, a swift review of past and recent literature across evidence one untouched conclusion: Despite the worldwide aspiration for such large scale commitments, authors highlight the inherent (and growing) complexity and unpredictability of those projects, which often create a sense of managerial frustration and desperation. Rapid advancements in technology that should help to predict the outcomes and reduce the risk in megaproject undertakings seem not to be enough in today´s context. For that reason, my intention with this paper is to contribute to a high potential and still under researched topic. This paper is

not designed as a new framework or managerial tool, but as a catalyst to spur further research on a particular megaproject that to my point of view, is mistakenly neglected by academics.

1.3 LIMITATIONS OF THE STUDY

The exceptional characteristics of megaprojects are not solely based upon the ever growing dimensions in terms of scale, scope and cost. More than that, their distinctiveness is established trough the contextual elements surrounding its environment and the Olympic Games are most likely the best example to describe this singularity. Despite being implemented every four years with the same purpose, hosting such a project in a different location is synonym of facing each time a completely new project environment. As a consequence, unproven and experienced project managers are confronted with the hosting nation´s individualities and dynamics in political, economic, social, technological, environmental and legal aspects. In times of globalisation, those variables become even more unpredictable as the Olympic Games are starting to take place in countries such as Brazil. In the past, events were held in developed countries, either in Europe or the United States, which were better positioned to bear the costs due to their larger economies and more advanced infrastructure. This observable trend does not mean that prior experience or awareness in the management of such a project is invaluable: In "The Fallacy of Beneficial Ignorance: A Test of Hirschman's Hiding Hand," by Bent Flyvbjerg (2016), his data collected through a systematic testing method rejects Hirschman's proposition that ignorance is good in planning projects with considerable levels of uncertainty. Adopted to this case then, managers must be able to extract knowledge from any Olympic Games and use it for the next one.

For the sake of this study, one limitation of this paper is the exclusive focus on the 2016 Summer Olympics under a specific, yet crucial time frame: 3 months prior and 3 months after the staging of the event. Well aware that the preparation phase takes almost seven years, the 6 months of analysis are still expected to bring a valid picture on the megaproject. After all, a portrayal of the project environment becomes easier when media reporting reaches peak levels that are hardly observable during other phases of the project. Nonetheless, the quality of newspaper reporting on project related issues associated to Rio 2016 won´t be discussed here.

Furthermore, this paper has no intention to classify the Olympic Games as positive or negative on any basis. Beyond any doubt, such large scale commitments can be evaluated on multiple success factors (i.e. applied elements to increase project´s chances to be successful) and

criteria (i.e. applied measures to evaluate the project at end). However, past literature showed that the evolution of project success factors was not synonym to a fruitful outcome (KPMG International, 2008; The Standish Group, 1994). The clear establishment of a common approach across different projects becomes therefore impossible. In light of that, the projects´ unique circumstances can´t be compared with other Olympic projects and as such the reader should be aware about the difficulty to create any sort of comparative analyses This study will not refer itself to any exact variables, performance assessing factors or criteria. Instead, it will ground itself on a conceptual definition of megaproject and two widely adopted theories of project management: Stakeholder theory and Institutional theory. The selection of those theoretical groundings do not mean that other areas of research, such as project governance (that will be shortly mentioned in the analysis), are worse or unneglectable in the area of project management. After a cross reading of megaproject literature, it was the author´s decision to choose them.

At the end of the day, this work should highlight the limited and practical applicability of existing theories when assessing an overall picture of this particular type of megaproject, the biggest world stage of sport. Major occurrences of the Olympics should be rather classified by an adaption of a theoretical concept, and only then analysed event by event with the support of the two aforementioned theories. It cannot be emphasized enough that this study depicts a distinctive megaproject, in a unique environment under a very specific timeframe. As later demonstrated in this study, planning and implementing such a major sport event in a developing country brings challenges and obstacles that up to this date were unfamiliar and unknown for the project team.

2. LITERATURE REVIEW

An introduction into megaprojects is followed by a basic understanding of two deeply connected concepts, Complexity and Risk. With those theoretical foundations in mind, largely represented theories in Megaproject research will be reviewed, namely Stakeholder theory and Institutional theory.

2.1 Megaprojects

According to Flyvberg (2014), “Megaprojects are large-scale, complex ventures that typically cost US$1 billion or more, take many years to develop and build, involve multiple public and private stakeholders, are transformational, and impact millions of people”. Such long planning and decision making horizons eventually create the distinctive environment of megaprojects, analogous to an unique multi - actor interaction between numerous conflicting interests of public and private entities. Despite the obvious managerial complications to act in this environment (Chan, Scott & Chan, 2004; Flyvbjerg, Bruzelius & Rothengatter, 2003), the need and aspiration for more and bigger megaprojects is unquestionable in times of rapid urbanization. Managers now require suitable skills, consideration and leadership to handle such an impactful project. Conferring Flyvberg (2014), those megaprojects are approached by decision makers through four different motivations, to which he calls sublimes: the technological one, defined by the enthusiasm of engineers for innovative and record breaking constructions; the political one striven by the desire of politicians to build monuments that are at the same time long-lasting and highly visible to the public and the media; the economic one characterized by the satisfaction of/for most the stakeholders in making lots of money and jobs from megaprojects; and finally the aesthetic one, which is nothing more than the intrinsic pleasure of architects to design iconic buildings.

Yet, the author also concludes that average performance is unsatisfactory no matter how strong managers follow their aspirations. For example, the technological and aesthetical sublime can be pursued up to the point where no learning from past projects is considered helpful due to “uniqueness bias”: A common assumption that every megaproject is matchless in all dimensions.

As a result of that, megaprojects are selected erroneously while costs are underestimated and the benefits are overestimated. They are subject to what he describes as the “break-and-fix” model: An often detectable pattern in which megaprojects tend to “break” sooner or later because of managerial knowledge/planning gaps in megaproject delivery. In such cases, “fixing” measures in form of schedule, cost or benefit adjustments to optimistic or manipulated estimates are indispensable. His line of thinking is backed up by other authors, which also state that the lack of knowledge on megaprojects results not only in the challenge to coordinate them (Scott, Levitt & Orr, 2013), but also in the propensity to be below performance with cost and schedule overruns (Thomas & Mengel, 2008; Gilge & Kagan, 2013). Most of the times managed by governments (Ika, Diallo & Thuillier, 2012), megaprojects are subject to strict governance frameworks that are all scrutinized by several researchers (Christensen, 2011; Crawford & Helm, 2009; Klakegg, Williams & Magnussen, 2009; Williams, Klagegg, Magnussen & Glasspool, 2010).

At the end of the day, the adoption of such frameworks attempt to help project managers to cope with the intrinsic complexity and subsequent risk of this particularly large undertakings. Those two concepts are unavoidable for any manager because megaproject environments result in variables such as budget, time or scope to remain uncertain until the conclusion of the project. Variables that are regarded as crucial and more predictable in smaller projects. For that reason, the concept of complexity and risk management will be further discussed in the light of the recent steps in the academic megaproject domain (Zhang, Wang & Luo, 2009; Williams, 2009; Hu, Chan, Le, & Jin, 2015).

2.2 Complexity

A well-established definition of complexity is abstruse (Ramasesh & Browning, 2014; Browning, 2014; Qureshi & Kang, 2015; Saunders, Gale & Sherry, 2015), but the basic designation of complexity is defined as an entity consisting of many varied interrelated parts and elements such as tasks, components, and interdependence. Translating this definition to megaprojects and its characteristically long planning horizons and large stakeholder environments (Taylor & Ford, 2008), megaprojects are complex systems composed of multiple interrelated processes, activities, players, resources, and information (Zhu & Mostafavi, 2014).

The structure, dynamics and interactions of all those elements is what ultimately defines project complexity in all its technical, organisational and environmental domains (Botchkarev & Finnigan, 2015). As so, every project is subject to different degrees of complexity (Lu, Luo, Wang, Le & Shi, 2015) that despite all the academic efforts to evaluate are still reaching no common ground for evaluation. Debates are still figuring out a widely accepted definition of complexity in project context (Bosch-Rekveldt, Jongkind, Mooi, Bakker & Verbraeck, 2011; Geraldi, Maylor & Williams, 2011; Vidal, Marle & Bocquet, 2011; Ireland, 2013; Brady & Davies, 2014).

At the same time, complex projects are often mixed with complicated projects. This long lasting misunderstanding is clearly tackled by the authors Bakhshi, Ireland & Zubielqui, (2015): According to them, "(…) projects become complicated rather than complex, because the management of such is fairly predictable, and essentially linear, in terms of outputs such as cost, time and performance. By comparison complex projects consist of ambiguity and uncertainty, interdependency, non-linearity, unique local conditions, autonomy, emergent behaviours and unfixed boundaries." Uncertainty under its wide ranging definitions (Williams, 1999; Perminova, Gustafsson & Wikström, 2008; McLain, 2009) is therefore recently supported and even terminologically confounded with complexity (Atkinson et al., 2006; Geraldi & Adlbrecht, 2007; Vidal & Marle 2008; Bosch-Rekveldt et al., 2011; Milind Padalkar, Saji Gopinath, 2016).

Reaching a specific goal in complex projects is not similar to reaching milestones of a complicated one. Note that small projects can also be complex but the larger of megaprojects´ structure, environment and interactions evidences that much more than excellent leadership or technical skills are required to reach the targets of cost, time and performance among complexity and uncertainty. In fact, statistical evidence shows that such complexity and unplanned events are often accounted for leaving erroneous budget and time estimates (Flyvberg, 2014). Those unplanned events, or risks, should not shy away managers since they can also come in form of opportunities rather than threats (Hertogh & Westerveld, 2010). Therefore, modern megaproject planners need to accept risk by admitting that complexity is not going away and will only increase, especially when projects are "situated in urban or semi-urban areas and tend to have considerable social, environmental, and distributive impacts" (Scott, Levitt & Orr, 2011).

This logic of managerial exposition to seemingly boundary less and unpredictable environments is what created risk management in megaprojects. Risk will therefore depend on

the organizational anticipation, comprehension and navigation through complexity: A setting of a growing number of interactions within the organizational environment, causing “the inability to predict the behaviour of a system due to large numbers of constituent parts within the system and dense relationships among them” (Sheard & Adviser-Mostashari, 2012, p. 11).

2.3 Risk

Overall, project risk is defined as “the effect of uncertainty on the project as a whole” (PMI, 2013), or as “the exposure of stakeholders to the consequences of variations in outcome” (Association for Project Management, 2012). Hence, risk is an event, of positive or negative impact, that might occur in the future and that up to the date has not fallen over a project. Becker (2004) defined three types of risk: A known risk is one that is clearly recognized in the early planning phase of the project. An unknown risk is one known by a very limited group of people and not recognized in the project planning activities. Finally, an unknowable risk is a completely unforeseeable event until the moment it actually arises.

Following that line of thought, project risk management is a systematic process of identifying, analysing and responding to all those risks throughout all phases of the project context. Several processes are constructed to accomplish that task: According to the fifth edition of the PMBOK (2013), project managers should deal with risk in accordance to six steps: Risk Management Planning, Risk Identification, Qualitative risk analysis, Quantitative risk analysis, Risk response strategy implementation and the final step of Monitoring and Controlling risks. With no intention to neglect the importance of such approaches that are all broadly explained, I rather shift focus to the principal challenge that megaproject contexts face: In the book *Megaproject and Risk: An Anatomy of Ambition*, the authors (Flyvberg et. al, 2003) state that the biggest challenge of risk in megaprojects is not the validity or quality of developed risk frameworks, but the inattention of today´s megaproject planners to apply them in a strict manner. Estimates and thus risk management are therefore highly influenced by the optimism bias of planners placed for such big commitments.

The risk of a project is consequently not only composed of known, unknown or unknowable risks through the emergence of events in the future, but also of megaproject managers´ ambition that leads them to go blindly through the complex environment of

megaprojects. Both of these factors that contribute to the concept of risk are megaprojects can be tackled by stakeholder theory: After all, a clear perception of the surrounding stakeholder environment of a project not only provides all the means to apply risk-frameworks, but also incentives managers to face reality in detriment of an overambitious planning.

2.4 Stakeholder theory

The very first conceptual definition of stakeholder theory emerged in 1963 by the Stanford Research Institute. At that point, stakeholders were defined as individuals whose existences were fundamental for corporate existence. This designation deserved no academic advances until its further exploration on Freeman´s renowned book Strategic Management: a Stakeholder Approach (1984). In this milestone setting work, stakeholder theory was based on the dynamic bonds between organizations and its stakeholders, translated into entities "who can affect or is affected by the achievement of the firm's objectives". With a quite similar perspective to Freemans´, the Project Management Institute (PMI) adopted Stakeholder management (SM) as a best practice knowledge area in the PMBOK.

Nowadays, a driver for the interest in stakeholder management is the rising struggle that governments face in delivering megaprojects (Cuppen, Bosch-Rekveldt, Pikaar & Mehos, 2016). Literature attested that SM is critical for project success (Achterkamp & Vos, 2008; Jepsen & Eskerod, 2009; Yang, Shen, Ho, Drew & Xue, 2011), but its wide-ranging and fast-growing research in the (common) PM area (Achterkamp et al., 2008; Aaltonen, 2011; Eskerod, Huemann & Savage, 2015; Heravi, Coffey & Trigunarsyah, 2015; Littau, Jujagiri & Adlbrecht, 2010; Mok, Shen & Yang, 2015; Tang & Shen, 2013; Yang, Shen, Ho, Drew & Xue, 2011) didn´t translate properly to megaprojects (Jia, Yang, Wang, Hong, & You, 2011). In an environment of mutual adjustment to the actions of other parties (Morris, 2013), core capabilities of project based companies rely on strategic response shaping to the stakeholder setting (PMI, 2013). It is a decision making progress between multiple actors, both public and private, with conflicting interests (Aaltonen & Kujala, 2010) and includes "all organizations, and relationships between them, that can affect or be affected by the project" (Aaltonen, 2011).

To approach SM in a more practical manner, numerous techniques containing interviews, forums, focus groups, surveys and workshops were studied and compared (Larson, Measham & Williams, 2010). They all contributed to the development of different classification frameworks and conceptual tools in order to identify critical types and attributes of project stakeholders (e.g. Achterkamp & Vos, 2008; Bourne & Walker, 2005; Bourne & Walker, 2006; Cova & Salle, 2005; Freeman, 1984; Mitchell, Agle & Wood, 1997; Olander & Landin, 2005; Winch, 2004).

Stakeholder identification frameworks are based on pre-set classifications, such as external/internal (Aaltonen & Sivonen, 2009), private sector/ public sector/ community/ independent (McQueen, Elkadi, Millar & Geoghegan, 2008), and upwards/ downwards/ outwards/ sidewards (Bourne, 2005). Internal stakeholders, often referred as primary stakeholders (Cleland, 1998) or business actors (Cova et al., 2005) are stakeholders that are usually formal, official or contractual partners and supporters of the project. They engage in economic transactions with the business, such as customers, suppliers, creditors and employees. On the other side, external stakeholders, also denoted as secondary (Cleland, 1998) or non - business stakeholders (Cova et al., 2005), are informal members but may affect or be affected by the project. They don’t tend to participate in direct economic exchange.

The foundation for stakeholder attribute assessment is accredited to Mitchell et al.'s (1997) notable stakeholder salience model, which had been developed to characterize and classify stakeholders by considering three stakeholder attributes of power, legitimacy and urgency. Power is described as the strength of the stakeholder to control the resources of the project. Legitimacy is defined as the degree of acceptance relative to the stakeholders´ actions in the socio-cultural spectrum. Last but not the least, Urgency is set as “the degree to which stakeholder claims call for immediate attention” (Mitchell et al., 1997). Bourne (2005) further elaborated on Mitchell´s model and proposed a refinement on each of the previously defined attributes. Hence, power is the degree to influence the work or the outcomes of the project; proximity is the type of existing associations to the work of the project; urgency is the level of commitment to achieve project outcomes. Legitimacy got replaced by proximity, as it enabled a more precise interpretation (Yang et al., 2011). This framework is then concluded through a Stakeholder Circle diagram mapping, where the project team weights each of the attributes (Bourne, 2005).

Despite all those different perspectives, managers have struggle to fill and go through the frameworks. The cause for such difficulty lies on the confrontation of managers with the ever

increasing complexity and ambiguity of the stakeholder landscape, leading to a pronounced uncertainty in the project setting (Burton & Obel, 2003). According to Aaltonen and Kuljala (2015), “uncertainty of the stakeholder landscape can be understood as the emergent nature of the stakeholder system, unpredictable interactions between stakeholders and the lack of information that managers face with regard to stakeholders' attributes, behaviours and interactions.” He further states on the fact that literature makes several references to the tough accessibility of stakeholder identification and information (Jepsen & Eskerod, 2009; Mok et al., 2014; Yuan, 2013), unpredictability in behavioural and interactional patterns of emerging actors (Aaltonen, 2011) and in the uncertainty among stakeholder requests (Tang & Shen, 2013).

Calls for research are now targeted on managing those complexities and the dynamics of the stakeholder environment. Aaltonen, and Kujala (2015) concluded that “in particular, the dimensions of uncertainty, dynamism and institutional context (…) have been largely underrepresented in previous accounts of project stakeholder management. As a conclusion, the importance of Stakeholder theory in recent times is connected to how organizations respond and proceed to institutional complexity when managing their stakeholders.

2.5 Institutional theory

In project based organizations, institutional theory addresses the behavioural process of social structures over a certain amount of time (Scott, 2012). As an attempt to investigate similarities and differences in social settings, it also aims to analyse the relation between structure and behaviour. However, institutional theory recognizes institutions not only as social structures, but also as concrete independent organizations whose operations are not purely profit-driven (Phillips, Lawrence & Hardy, 2000). The model is constituted among three pillars (Scott, 2004): regulative, normative, and cultural-cognitive elements. The first includes formal rules such as laws and contracts (Scott, 2004; Henisz, Levitt & Scott, 2012), which are often imposed externally on a company. Normative foundations can be created consciously because they consist of informal norms, values, practices and roles. As an instance, internally developed mentoring and training standards but also informal relations can lead to routinized methodologies from associations or organizations. Lastly, cultural-cognitive elements serve as a basis for social order,

and cover shared beliefs, symbols and logics of action (Misangyi, Weaver & Elms, 2008; Orr & Scott, 2008; Scott 2012). Organizations that identify with a specific occupation or professional network take part of this category (Grabher, 2004).

In his publication "Managing the institutional context for projects", Morris (2011) essentially acknowledges an evolving stream of project management thought. Following Parsons (1951, 1960) work, he proposed that project management could be rationalized in to three distinct levels: Level 1 is a primarily technical one, oriented towards an efficient project delivery based on operational criteria such as time, budget and scope. Level 2 is a strategic dimension, which looks at managing projects as organizational entities. Here, the technical core is isolated from environmental turbulence, an aspect that has been criticized afterwards by several authors (Engwall, 2003; Söderlund, 2004). Finally, the institutional level is the third and last stream. It aims on the development of a suitable institutional context for projects to succeed. This levels implicates a broad view on the projects surrounding environment through so-called "hard" and "soft" mechanisms. The first encompasses processes and standards, while the latter embraces social contracts, behaviours and culture.

2.6 Final remarks on the theoretical underpinnings

The Olympic Games of Rio de Janeiro naturally faced obstacles from different directions. After all, the Olympic project included a wide range of different stakeholders, regulators, customers and suppliers. The interaction among them is what ultimately set the outcome of the project (Brady & Davies, 2010), influenced by the varying perspectives of other organizations or institutions in the environment (Dille & Söderlund, 2011). This large interacting environment is a complex megaproject system that needs to be managed through an efficient inter- dynamic exchange between the elements (Gann & Salter, 2000). Notwithstanding the fact that megaprojects are more complex and volatile due to its sheer size (Brady, 2011), the higher probability on the occurrence of unexpected issues only highlight the importance of complexity and risk management.

This study does not look, per se, with greater detail on the interaction of the whole network. Instead, it highlights the main issues of the Olympic Games that affected the main

project actors. With that portraying, future research can be done on stakeholder management and network studies that depict the Olympic project as a complex system.

3. METHODOLOGY

3.1 Research method

The primary data was collected by two qualitative methods. First, a documentary analysis was conducted on four newspapers in order to contextualize the project environment of Rio 2016. The second method was a semi-structured interview with a person from the local OCOG in order to understand how the collected issues related the newspaper articles were managed. Moreover, the person clarified on specific points as newspaper articles seemed to provide misunderstanding information related to the governance of the Olympic project.

3.2 Data Collection

The following chapter starts with an explanation how content analysis was performed to conduct a documentary analysis of newspapers. Then, the major guidelines of the semi-structured interviews will be explained in chapter 3.2.2. The following two chapters depict how newspapers were selected and how articles were collected for the purpose of this study.

3.2.1 Content Analysis – Qualitative, Inductive and Conventional

Historically speaking, content analysis started to emerge from political investigations on hymns, articles, advertisements and speeches during the 19th century (Harwood & Garry, 2003). It is a technique of analysing written, verbal or visual communication messages (Cole, 1988) aimed to quantify and/or describe a phenomena with valid and replicable inferences (Krippendorff, 1980; Downe-Wamboldt, 1992; Sandelowski, 1995). This phenomena should be

revealed in a condensed yet clear picture, supported by categories or concepts. Academically speaking, content analysis can be regarded as a flexible investigation (Cavanagh, 1997) due to its possibility to incorporate from an intuitive to a systematic process of examination (Rosengren, 1981). With that in mind, the degree of difficulty in applying this method is therefore set by the researcher (Neundorf, 2002).

This particular research method is primarily distinguished as either quantitative or qualitative (Hsieh & Shannon, 2005) in a deductive or inductive way. Different research commitments require different analysis techniques (Knafl & Howard, 1984), so the problem of which form to use is determined by the purpose of the study (Weber, 1990). The quantitative approach is an objective, obtrusive, generalizable and outcome oriented measurement of a stable reality with truths external to and independent of the observer. It follows a deductive path as it is an operationalized analysis following academic frameworks intended to test hypothesis or prove previously developed theories in empirical research (Kyngaॅs & Vanhanen 1999). To ensure the legitimacy of the collected data in statistical terms, the selection criteria should be based upon random sampling with elected categories demanding to be mutually exclusive and compliant to statistical procedures (Weber, 1990). Nevertheless, numbers can be easily manipulated whereas the assignment of a particular source to a single category can become a challenge.

Qualitative content analysis is “any qualitative data reduction and sense-making effort that takes a volume of qualitative material and attempts to identify core consistencies and meanings” (Patton, 2002). It is one of numerous research methods used to examine text data observable in verbal, print or digital form generally attainable through open-ended survey questions, interviews, focus groups, observations, or the print media (Kondracki & Wellman, 2002). In contrast to the quantitative approach, the qualitative content analysis “assumes that all knowledge is relative, that there is a subjective element to all knowledge and research, and that holistic, ungeneralizable studies are justifiable” (Nunan, 1992). Texts are purposively selected, examined and compared in order to picture the social reality through themes and categories developed by the researcher in a subjective yet scientific style. The description of such a particular setting can then be used for the validation of existing or the development of new theories. While qualitative content analysis does not exclude a deductive classification (Patton, 2002), the immersion in the data to allow new perceptions to emerge (Kondracki & Wellman, 2002) is also defined as inductive category development (Mayring, 2000). This approach is

appropriate when former knowledge on a phenomenon is limited and as such investigators avoid using any predetermined categories from literature, instead allowing categories to come from the data (Kondracki & Wellman, 2002).

In contrast to the quantitative content analysis, the qualitative content analysis allows the assignment of data to more than one category (Tesch, 1990). Particularly at the initial phase, the categorization can be puzzling due to unexpected difficulties that may arise (Glaser, 1978) or due to several, seemingly unconnected pieces of information (Backman & Kyngaॅs, 1998). Besides the obligation to cover the whole dataset (Graneheim & Lundman, 2004), this categorization scheme should be a logical, systematic and comprehensible process meant to guarantee the trustworthiness and credibility of the study (Folger, Hewes & Poole, 1984). It should be conceptually understandable and show a link between the results and the data (Polit & Beck, 2004). For that, other data display methods such as graphs and charts may be included (Miles & Huberman, 1994).

Based on the degree of involvement of inductive reasoning as well as the substantive interest of the researcher on the problem (Weber, 1990), Hsieh and Shannon (2005) deliberated three studies to content analysis: Conventional CA, Directed CA, and Summative CA. Observable in Table 2, in the conventional technique categories are derived directly and inductively through observation from the raw data. Hence, the researcher obtains a rich understanding of the phenomena. The directed content analysis uses a far more deductive approach because it starts with a theory and its pre-set categories in order to validate a conceptual framework. Lastly, the summative content analysis starts with counting keywords but is distinctive from a quantitative methodology due to its exploration on the usage of words in an inductive way. Table 2 depicts the
usual coding differences among three approaches to Content Analysis.

Table 2 - Major coding differences among three approaches to Content Analysis

Type of CA	Starts by	Timing of Categories or Keywords	Source of Categories or Keywords
Conventional Content Analysis	Observation	Categories are defined during data analysis	Categories are derived from data
Directed Content Analysis	Theory	Categories are defined before and during analysis	Categories are derived from theory or relevant research findings
Summative Content Analysis	Keywords	Keywords are identified before and during data analysis	Keywords are derived from interest of researchers or review of literature

(Author´s table adapted from Hsieh and Shannnon, 2005)

For the sake of this study, a Conventional Content Analysis was applied to analyse the digital text data within the chosen newspaper journals. In other words, the study started with an observation and comprehensive reading of Olympic Games articles with no definite and pre-set theory in mind, as theory was unable to categorize any of the news. Categories were therefore derived from the raw data.

3.2.2 Interview

Data collection can be derived from a number of methods such as interviews, focus groups, surveys and questionnaires. Therefore, which data collection method to use would depend upon its goals and the advantages and disadvantages of each method. In the light of qualitative research that offers a variety of suitable techniques (Cresswell, 1994), interviews are one to give a contextual meaning and insight into a social phenomenon (Mays & Pope, 1996; Kendall, 2008). In other words, Kvale (1983) defines the qualitative research interview as "an interview, whose purpose is to gather descriptions of the life-world of the interviewee with respect to interpretation of the meaning of the described phenomena".

In the view of literature (Gill, Stewart, Treasure, & Chadwick, 2008; Morse & Corbin, 2003) there are three central forms of research interviews that present slight variations in structure and conduct: Structured, Semi-structured and Unstructured interviews. Contained within are “tightly structured, survey interviews with pre-set, standardised, normally closed questions (and on) the other end of the continuum … open-ended, apparently structured, anthropological interviews” (Seidman, 1998). According to Morse & Corbin (2003), the main difference between the approaches is “the degree to which participants have control over the process and content of the interview”. Still, there is no single interview style that fits every occasion.

The structured interview is, as the name already suggests, a rigid instrument in which respondents are asked to answer within fixed, closed and predetermined set of responses (Corbetta, 2003). As they typically comprise serious constraints on the range of response, data is easily collected often analysed quantitatively. Advantages of the structured interview are grounded on the control of the researcher that follows his interview guide. However, adhering too closely to a guide may provide no “depth” and little scope for follow up questions.

In semi-structured interviews “the researcher has a list of questions or fairly specific topics to be covered, (...) but the interviewee has a great deal of leeway in how to reply” (Bryman, 2004). At this more flexible approach, pre-set open-ended questions are employed by the researcher on the participant, encouraging him to provide detail and clarification on certain themes and topics. As the interviewer does not seek to test a specific hypothesis (David & Sutton, 2004), data is explored on a qualitative basis.

More casual and non-directed than the aforementioned examples, the unstructured interviews are described by Morse & Corbin (2003) as an involvement "in which researchers and interviewees come together to create a context of conversational intimacy in which participants feel comfortable telling their story". Resembling more a conversation with minimal hold on any preconceived theories or ideas, unrestricted questions are generated instantaneously and subjectively as personal experiences and perspectives are related during the interview. While validity and reliability of the interview data may be questionable, there is also a high potential for experienced interviewers to obtain new insights when little or no knowledge exists about a topic.

As a further complement to this study, an in-person semi structured interview was performed by the investigator to a member of the Organising Committee of the Olympic Games. The approximately two hour long interview was held in Portuguese and took place in a small, quite coffee shop in Rio de Janeiro on the 19th of December 2016. No formal token of appreciation was given to the interviewed person. Outcomes were audio-recorded and transcribed to enable a comprehensive analysis of the content. Listed in table 3, the semi structured interview covered the following themes and its corresponding key points and objectives:

Table 3 - Semi - structured interview process

Theme	Key point	Objective
Project Governance of Rio 2016	▪ Who are principal project actors of Rio 2016?	▪ To get a clear picture and background information on the main project actors of Rio 2016
Issues on Rio 2016	▪ How did the project actors handle the upcoming issues raised by the media from May 2016 to November 2016?	▪ To depict the issues in light of the project governance picture ▪ To establish a matrix of responsibility
The media as an informing party on Rio 2016	▪ How did the OCOG deal with the media? ▪ Was the media reporting honest, clear and transparent?	▪ To understand the behavioural patterns of the media as a stakeholder

(Author´s table)

3.2.3 Newspaper selection

The preparation and implementation of events similar to the Olympic Games are covered constantly by the media (Masterman, 2004; Rofner, 2009). With that in mind, the selection process of newspapers took place under four distinct phases, which will be all further described below. Step 1 depicts the preliminary conditions set by the author regarding sample size. Step 2 depicts the accredited newspaper rankings found through the google search engine. Step 3 follows with an evaluation of the potential candidate journals according to four distinct criteria: Language, Keyword match, Timeline fulfilment and Premium content requirement. Step 4 identifies the selected journals to consider in this analysis.

Step 1: Preliminary conditions of the author

In order to obtain a broader perspective, both domestic and international newspapers were intended to be chosen for data collection. A first condition would be the selection of a local journal from Rio de Janeiro since coverage from a newspaper company headquartered in the host city is expected to be more extensive and detailed. In order to counterbalance possible biases from the local coverage, another Brazilian newspaper should be identified. The third condition would be the inclusion of two international high ranked journals, to match the sample size of Brazilian newspapers and in order to guarantee a balanced source of information.

Step 2: Identification of newspaper rankings

Expert evaluation on newspapers at domestic and international scale had to be found. Through the google search engine, two distinct newspaper classifications were identified.

The ranking for local newspapers was obtained through the *Associação Nacional de Jornais* (ANJ). Here, the standings are based upon the largest circulating paid journals in 2015.

The classification for international periodicals was set by the *Newspaper Web Ranking* (NWR). Contemplating data of 2016, it is based upon an algorithm from three different search engines: Google Page Rank, Alexa Traffic Rank and Majestic Seo.

Step 3: Criteria for the evaluation of potential candidate newspapers

Next, the author evaluated top placed journals on four self-established criteria, explained in table 4. Those were the reported language of the articles, the keyword match in each search engines of the website, the timeline fulfilment consisting of three months prior and after to the staging of the event, and finally the potential absence of a premium account requirement.

Table 4 - Criteria for selection of the newspapers

Criteria	Description
1st – Language	Articles should be in Portuguese or English, languages in which the author is a fluent speaker.
2nd – Keyword match	The digital newspaper website should have a considerable amount of information regarding the Olympic project under the keyword "Olympic Games" / "Jogos Olímpicos".
3rd – Timeline fulfilment	The digital newspaper website should have news coverage 3 months prior and after to the Rio 2016 Summer Games. As such, the analysis will include coverage starting on the 1st May 2015 and reporting until 31th November 2016.
4th – Premium content requirement	The digital newspaper website should preferably not oblige for a premium account in order to collect the data, unless it involves a small monetary value.

(Author´s table)

Step 4: Identification of newspapers for analysis

Taking into account the abovementioned steps before, table 5 shows the chosen newspapers for data analysis. Note that the first ranked Brazilian journal, Super Notícia, was not included in this analysis as it did not appear in a check-up of the international NWR ranking.

Table 5 - Selected Newspapers for analysis

Newspaper	Origin	Ranking	Keyword match	Timeline fulfilment	Premium req.
O Globo	Rio de Janeiro	#2 (ANJ)	"Jogos Olímpicos"	Yes	Yes
Folha de São Paulo	São Paulo	#3 (ANJ)	"Jogos Olímpicos"	Yes	Yes
The New York Times	United States of America	#1 (NWR)	"Olympic Games"	Yes	Yes
The Guardian	Great Britain	#2 (NWR)	"Olympic Games"	Yes	No

(Author´s table)

3.2.4 Data collection from the newspaper articles

The aforementioned journals were analysed individually and manually by the researcher of this paper. As a first step and according to the formal language of the journals, each newspaper search engine was typed in with the keyword “Jogos Olímpicos” or “Olympic Games”.

Confronted by the large amounts of brute information that also included reporting from past Olympic events, the second step embraced a filtering of the total output delivered by each periodical. For that, each journal´s results from their respective search engines were limited to the start of May 2016 until the November 2016. Taking into account that the Games of Rio took place in August 2016, the chosen timeline presented all the news three months prior and three months after to the execution of the project.

The third step included a one by one listing of all the results by article title, date of publication, author and website link in Microsoft Excel, the unique supporting software of this research. Data sets of each journal were collected under a separate spreadsheet.

After a free and inductive reading of each article and by means of a conventional and inductive CA, categorization of each article was prepared with the unique purpose of englobing a project management perspective on the Olympic Games. Remember that the qualitative content analysis allows the assignment of data to more than one category (Tesch, 1990). Particularly at the initial phase, the categorization was difficult due to several, seemingly unconnected pieces of information (Backman & Kyngaॅs, 1998). With that in mind, several categories raised by the author, like sport results on days of competition, were evaluated individually. If considered to have no further impact on the main project actors of Rio 2016, the articles under irrelevant categories were excluded from the researcher´s database. On top of that, a specific category should be present across all journals by other journals for a further comparison between standpoints. If this was not the case, the issue would be excluded for the analysis, but kept in the spreadsheets.

Figure 1 presents the step-by-step just described above. Table 6, 7, 8, 9 exhibit the total number of project related news and its subsequent rate of utilization left from the total sample of analysis of each newspaper. In other words, it depicts the total number of results found across the

four units of analysis, under the imposed time window and the respective keyword. Table 10 depicts the excluded categories classified as non-project related or underrepresented.

Figure 1 - Step by step process of the conventional and inductive CA

(Author´s figure)

Table 6 - Total number of raw data, project related data and utilization rate from O Globo

O Globo	Total number of articles	Project related	Utilization rate (in %)
November	69	17	25
October	86	25	29
September	267	65	24
August	1047	197	19
July	535	169	32
June	306	84	27
May	218	53	24
TOTAL	**2528**	**610**	**24**

(Author´s table)

Table 7 - Total of raw data, project related data and utilization rate from Folha S. Paulo

S.Paulo	Total number of articles	Project related	Utilization rate (in %)
November	43	13	8
October	63	17	7
September	95	34	36
August	633	135	21
July	408	170	42
June	246	103	42
May	154	70	45
TOTAL	**1642**	**542**	**33**

(Author´s table)

Table 8 - Total number of raw data, project related data and utilization rate from the New York Times

NY Times	Total number of articles	Project related	Utilization rate (in %)
November	2	1	50
October	2	1	50
September	7	5	71
August	431	84	19
July	121	51	42
June	75	28	37
May	24	14	58
TOTAL	**662**	**184**	**28**

(Author´s table)

Table 9 - Total number of raw data, project related data and utilization rate from The Guardian

The Guardian	Total number of articles	Project related	Utilization rate (in %)
November	16	5	31
October	42	10	24
September	65	21	32
August	991	117	12
July	206	41	20
June	89	32	36
May	85	40	47
TOTAL	**1494**	**266**	**18**

(Author´s table)

Table 10 - Excluded categories classified as non-project related or underrepresented

Sports related	Results of day of competitions or athlete profiles.
Arts	News related to paintings and other artistic undertakings.
Food	Receipts and gastronomical recommendations of the hosting city.
Culture & Tourism	Historical recordings and touristic attractions of Rio de Janeiro.
Media	Broadcasting numbers and statistics.
Bibliographies	Description of past celebrities related to the Olympic project.
Interviews	Often not fact based.
Ceremonies	News about the stage performance of the ceremonies.
Digital libraries	Digital content such as photo and video galleries.
Columns	Opinion based articles as they are not solely fact – based.
Workforce	Underrepresented theme in New York Times. News related to workforce conditions around the project.

(Author´s table)

3.3 Limitations

For the scope of this research, four newspapers were chosen: One American, one British and two Brazilian. Desirably for this study, a larger amount of influential newspapers would have been counted in but time and language constraints on the author impeded a broader inclusion of research samples. After all, conducting a content analysis calls for a professional, persistent and time consuming working approach from the researcher. However, the absence of other renowned newspapers from countries such as France or Germany should not be regarded as a weak spot of this study. As commonly observable in modern democratic countries, the Inter-media agenda phenomena is widely spread on today´s media reporting and consequently leads to a large pool of similar and overlapping information (Golan, 2006) . To overcome that particularity in this analysis, a mix between local and international newspapers was selected in order to provide a clearer picture of the project environment. In addition, data collection on digital newspaper showed to be more difficult than previously expected. Excluded candidate journals of this study showed more than a few weaknesses that severely limited the possibility of conducting a rigorous content analysis. As such, the three imposed criteria for newspaper selection (Availability of information, Timeline fulfilment and Absence of premium content) were commonly not met by other potential periodicals. Regarding the first criteria, search machines frequently brought no matching results for the keyword “Olympic Games”, nor did they provide any distinctive news section for the sport event. Moreover, corresponding results were often mere sport related issues or confounded with opinion based articles that were not included in the scope of this analysis. Furthermore, a considerable amount of newspaper websites did not meet the timeline requirement: Most of the times, reported news on Rio 2016 only took place during the Olympic Games or followed no chronological order. As a result, the construction of a dataset from May 2016 to November 2016 became an unviable task. Last but not least, the necessity for paid subscription models also hindered a broader inclusion of newspaper sources.

The predominant use of newspaper articles inevitably links to other core disciplines such as communication sciences. Those skills are not of deep knowledge to the author but at the same time not the purpose of the research. Hence, the possibly different journalistic science based functions and theories applicable to each newspaper will be disregarded throughout this study:

An agenda-setting role, in which "The mass media force attention to certain issues, (…) constantly presenting objects suggesting what individuals in the mass should think about, know about, have feelings about." (Lang & Lang, 1966). Secondly, the gatekeeper role that "simply put, (…) is the process by which the billions of messages that are available in the world get cut down and transformed into the hundreds of messages that reach a given person on a given day. (It) involves every aspect of message selection, handling and control" (Shoemaker, 1991). Lastly, the watchdog role wherein the media takes a crucial position in monitoring the conduct of governmental decisions. Other media concepts and theories limit the data source validation: For example, the falling viewership interest on once hot topics is described by the Downs Attention-Issue Cycles. For that reason, newspaper reporting on a particular topic can suddenly fall short even it is remains unsolved. As any other content analysis on newspaper articles, this research is also expected to be influenced by other concepts such priming, framing and/or indexing theory. In effect, the objective of this paper is to stick to a project management point of view rather than a journalistic based perspective.

Further limitations can be set on the conventional content analysis and the interview as a qualitative research method. As already mentioned before, a conventional CA relies on a strict yet subjective interpretation of the social reality. In other words, the categorization process of the dataset is the researcher´s cognitive learning process and may not be fully apprehended by the readership. His line of seem thinking must be trackable throughout the whole study, otherwise credibility falls short for his work. Results not only need to be strictly linked to the dataset, but they should also follow assumptions established before. Finally, the interpersonal nature of face-to-face interviews may be considered as socially desirable and contextually based results (Fontana & Frey 2000; Silverman, 2000, 2006; Richman, Keisler, Weisband, & Drasgow, 1999; Yin, 2009). This characteristic is augmented by the usual small sample sizes of qualitative studies that lead to hardly replicable or universal conclusions (Bryman, 2008). At a first glance, inferences that were extracted from only one interview harm the trustworthiness of this study. With that in mind, the reader should be aware about the difficulty in reaching a person as suitable as the one interviewed for this study, with a long experience and a swift career within the different areas in the Organising Committee of the Olympic Games.

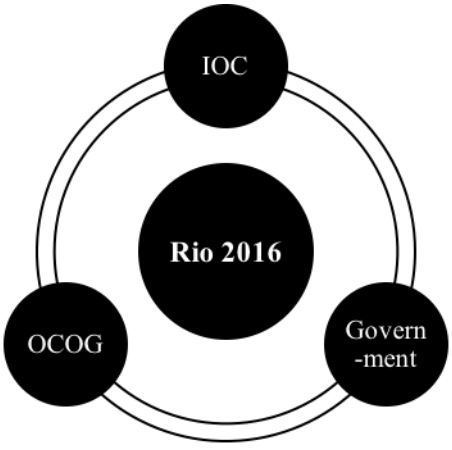
4. ANALYSIS OF THE RESULTS

In order to introduce the reader to the Olympic project, chapter 4.1 shortly explains the governance of the Olympic Games in Rio de Janeiro. Under chapter 4.2 follows an illustration of all the elected project – related events that impacted one or more of the project actors of Rio 2016. The third section of this chapter is an explanation of all the dimensions that the reader should keep in mind before reaching chapter 4.4, the core part of this analysis. Here, the management of project – related issues during the execution of Rio 2016 is going to be investigated taking into account the dimensions mentioned in chapter 4.3.

4.1 Project Governance of Rio 2016

Unlike to any other modern edition of the Olympic Games, Rio 2016 was mostly planned by three actors, depicted in figure 2: The International Committee of the Olympic Games, the local Organizing Committee of the Olympic Games and the Government. Due to the reason that the collected articles or any other bibliographic source did not elucidate the role of those teams and what their main responsibilities were, an interview was conducted to a member of the OCOG precisely to answer the question: Who are principal project actors of Rio 2016 and what do they do? The upcoming explanations were solely based on the interview.

Figure 2 - Main project actors of Rio 2016



(Author´s figure)

4.1.1 The International Committee of the Olympic Games

The IOC sells the Olympic project to the bidding cities through a selective process. The bid commitment between IOC and the chosen city is a premise for further development mainly through the legacy of infrastructure projects. The IOC can be considered to a large consultant company, which aims to sell the Olympic project with its respective master schedule and other milestones. At the same time, the Committee´s knowledge in prior events is used to monitor, to impose the submission of the city´s action plans and finally to validate them. One example is the requirement to present the first transportation and mobility plan two years prior to the opening ceremony of the Olympic Games. Moreover, the Olympic Committee is a mediator to all other international federations. This means that they were present in every meeting to discuss the various plans from alimentation, security, transportation and logistics presented by the OCOG of Rio de Janeiro. Those meetings, held twice a year since 2009 (later four times a year since 2014), were mandatory in presence for all the affected stakeholders groups: Clients, suppliers, federations, media, broadcasters, sponsors. The IOC has no executive power, but they levy on contracts and agreements established with the hosting city prior to the Olympic Games. Noteworthy to mention is the fact that the IOC owns the world´s most expensive brand name and brings the biggest sponsorships to the city.

To sum up, the responsibility of the IOC was to sell and consult the Rio 2016 project, sign the initial contracts and agreements with the hosting city and finally to validate all the submissions and plans presented by the OCOG.

4.1.2 The Organizing Committee of the Olympic Games

The OCOG was the local project team operating in the hosting city. Its role in the project can be understood as a service provider aimed to provide everything to keep the Olympic Games operational and smooth. This includes food, housing, transportation and logistics through signed contracts with shuttle and catering services, as an example. The mobility of spectators, athletes and journalists inside the venues is therefore a task accounted to the OCOG, which is ultimately sponsored by the IOC. Among ticket selling, most planning efforts are dedicated to the

compliance with the rules of sport: A lot of expertise from each sport was brought to Rio de Janeiro in order to guarantee the professional execution of the Olympic Games.

The OCOG should be also regarded as a private organization with the benefit of complete or partial tax exemptions, depending on the tax involved. In 2009, the local project team´s workforce was composed mostly of IOC members with prior experience in their respective functional areas during the planning process of other Olympic Games. Their objective was to teach and share their expertise with local staff in order to gradually dissolve themselves from the team. As such, the OCOG became increasingly of Brazilian nationality as the Games approached. Those IOC consultants then moved to the bidding committees of the next hosting cities.

4.1.3 The Brazilian Government

The Brazilian government had the obligation to provide the necessary infrastructure, transportation and security to execute the project, an agreement solely established between the government and the IOC. After that, the government rented pre-existing venues as well as new ones to the OCOG through a Venue User Agreement (VUA). The local project team therefore became an exclusive right holder to use the space in accordance to all the obligatory maintenance requirements. Despite the singularities of each VUA, most of did not charge any monetary compensation to the OCOG as long as basic maintenance and service costs were covered.

Prior to the selection of the hosting city in 2009, the government created a small department. Designated as Public Olympic Authority or Autoridade Pública Olímpica (APO), the team´s task was to fully prepare the candidate file.

4.2 Elected project – related events for analysis

The elected events were only obtained through a free categorization of each article across all the four newspapers. Remember that if considered to have no further impact on the main project actors of Rio 2016, the articles under irrelevant categories were excluded from the researcher´s database. On top of that, a specific event should be present across all journals by other journals for a further comparison between standpoints. If this was not the case, the issue would be excluded for the analysis. Table 11 illustrates the elected events for further analysis.

Table 11 - Elected events from May 2016 to November 2016

Events	Description
Bidding Countries	Facts related to upcoming and candidate countries for the Olympic Games.
Boxing scandal	Corruption allegations to the jury of the boxing federation.
Crisis	Political and financial crisis of Brazil.
Doping scandal	Russia and its state-sponsored doping mechanisms on athletes.
Environment	A governmental plan to clean up Guanabara Bay, a promise in Rio´s Olympic bid.
Infrastructure	News related to the Olympic park, the Olympic Village, other sportive venues and the construction of urban infrastructure projects.
Mobility	Articles mentioning the transportation systems constructed for the Olympic Games, more specifically the Metro Line 4, the VLT and the BRT.
Pat Hickey	Arrest of an Olympic executive accused of fraudulent ticket sales.
Ryan Lochte	The incidents involving American swimmers and an alleged gunpoint robbery undertaken by a local police officer.
Security	Security operations in the city of Rio de Janeiro.
Ticket Sales performance	Ticket sales performed by the OCOG.
Zika	The threat of a mosquito virus proven to cause a severe birth defect in babies.

(Author´s table)

The abovementioned events were identified across all journals, but some newspapers emphasized specific topic more than others. Applied to each newspaper, the following four tables (Table 12, 13, 14, 15) going to portrait how many articles were related to an event, as well as the event´s relative importance compared to the other listed issues. The summary of all newspapers together is represented through figure 3. This relation was named topic weight. Remember that each article can have more than one category, meaning that the topic weight was not calculated on the total amount of articles found in the data collection of chapter 3.2.4, but on the *total number of attributed categorizations (which is logically higher than the total number of articles*

found) divided by the total amount of articles under a specific event.

Table 12 - O Globo: Number of articles by event and respective topic weight

O Globo	Nr. of articles by event	Topic Weight (in %)
Bidding countries	10	2
Boxing scandal	4	1
Crisis	107	17
Doping	45	7
Environment	27	4
Infrastructure	141	22
Mobility	116	18
Pat Hickey	5	1
Ryan Lochte	8	1
Security	121	19
Ticket Sales	30	5
Zika	21	3
TOTAL	**635**	**100**

(Author´s table)

Table 13 - Folha São Paulo: Number of articles by event and respective topic weight

S.Paulo	Nr. of articles by event	Topic Weight (in %)
Bidding countries	10	2
Boxing scandal	5	1
Crisis	150	26
Doping	93	16
Environment	12	2
Infrastructure	85	15
Mobility	28	5
Pat Hickey	7	1
Ryan Lochte	13	2
Security	99	17
Ticket Sales	37	6
Zika	36	6
TOTAL	**575**	**100**

(Author´s table)

Table 14 - New York Times: Number of articles by event and respective topic weight

NY Times	Nr. of articles by event	Topic Weight (in %)
Bidding countries	3	2
Boxing scandal	8	4
Crisis	20	11
Doping	73	38
Environment	7	4
Infrastructure	15	8
Mobility	2	1
Pat Hickey	2	1
Ryan Lochte	14	7
Security	13	7
Ticket Sales	3	2
Zika	30	16
TOTAL	**190**	**100**

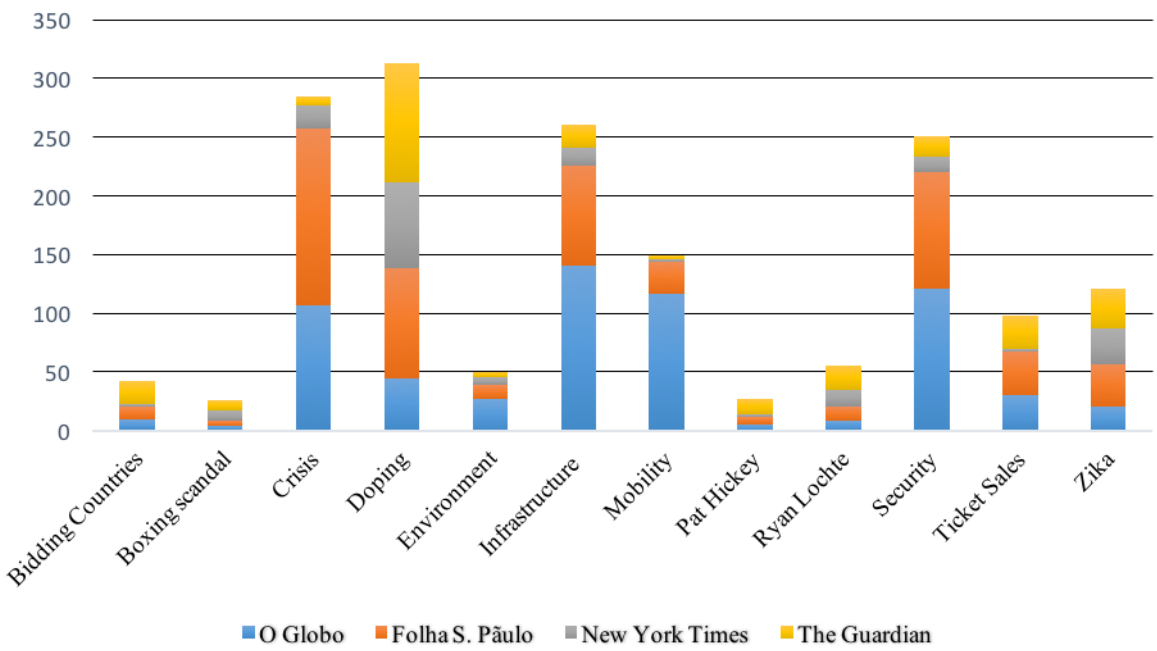
(Author´s table)

Table 15 - The Guardian: Number of articles by event and respective topic weight

The Guardian	Nr. of articles by event	Topic Weight (in %)
Bidding Countries	19	7
Boxing scandal	9	3
Crisis	8	3
Doping	102	37
Environment	4	1
Infrastructure	20	7
Mobility	3	1
Pat Hickey	13	5
Ryan Lochte	20	7
Security	18	6
Ticket Sales	28	10
Zika	34	12
TOTAL	**278**	**100**

(Author´s table)

Figure 3 - Project related articles by event from May 2016 to November 2016



(Author´s figure)

4.3 Dimensions to consider on this analysis of project related events

The aforementioned issues were all considered as project related events that had to be dealt by one of the three main actors of the projects. All of those occurrences were studied on three fundamental dimensions, which were:

1st Dimension: Out of the three main project actors, who got affected by the event?

2nd Dimension: How did international and local media report about the event?

Note: On this dimension, newspapers were cited in order to characterize their standpoint related to a specific issue. Moreover, each periodical was analysed for the total number of articles reported on each event and the topic weight, demonstrated in the previous chapter. Finally, the timing of publications in percentage to the total number of articles reported was also taken into consideration when reporting about an issue.

3rd Dimension: How did the event impact the Olympic project actors?

Note: Each event impacted the project teams in different ways. To stick to a strict megaproject perspective, the author evaluated each event for the potential political, aesthetic, economic and technological impacts on the project actors. Those impacts were inspired by Flyvberg´s four sublimes of megaproject management discussed in the literature review.

4.4 Management of project – related issues during the execution of Rio 2016

Please note that extractions from O Globo and Folha de São Paulo were, by all means of the author, translated to English. Also take into account that quotes were indexed (from the Excel spreadsheet) as they were treated as primary data. Supporting figures and tables are illustrated at the end of each subchapter.

4.4.1 Bidding countries

While the project was marked by a challenging preparatory phase to record breaking results from athletes during the Olympic Games, the media still reported, even if not much (Table 16), on the upcoming and candidate countries to stage the next greatest sporting event of the world. Unfortunately for the image of the project, those were not only dispersed through the months (Table 17) but also of negative nature.

In May 2016, French financial prosecutors confirmed investigations into Tokyo´s 2020 bidding team. On the table were suspect payments to secret accounts that, ironically enough, were supposed to be revoked as "(…) an independent panel appointed by the Japanese Olympic Committee (JOC) said the $2.3m (£1.74m) payment to Black Tidings, a Singapore-based consultancy, was legitimate and had been made in return for consulting services. The report also concedes that the $2m-plus sum paid (...) was double the average paid to other consultants the city had used during the bidding process" (Guardian 35).

Unsurprisingly on France´s behalf, the report was considered vague and investigations are still carried on. Corruption on megaprojects is present, and Olympic Games are no exception. Large sums of money are invested to establish an attractive candidate file and by that, candidate cities try to mitigate the risk of not being elected through the payment for privileged information or even votes. The Olympic project is comparable an auction, where the most attractive bidder gets the project. Furthermore, the Tokyo bid showed once more the complexity surrounding megaprojects. Japanese planners seemed to be victims of the over optimism bias, being overwhelmed by excessive ambitions while clearly underestimating costs. The IOC, in his major consultant role, did not agree with Japan´s organising committee whose predictions reached

alarming values of $20bn to $30bn – four times the initial estimate. In strong alignment between the IOC and the Japanese government, cost-reducing measures include the reallocations of some events to South Korea, hundreds of miles away. Apart of the honourable decision to include more youth attracting sports such as skating, surfing, and karate in the event, IOC vice-president John Coates, doesn´t "(…) want to let the international media have the impression that the costs of running the Games in a city like Tokyo, where you have so many existing venues, is $20bn. It is not, and there will be significant savings to be found" (The Guardian 1).

Taking into account the aforementioned discussion, this particular event affected the IOC at a political level and aesthetical level. Through his already strong interaction and debate with the next hosting city government about the alarming predictions, the skyrocketing costs alarmed other potential candidate countries. Countries that could be potential clients for the IOC. The New York Times described "An Olympic Event Where 1st Prize Is the Chance to Lose Billions". Such headlines obviously affected the IOC´s image and consequently, candidate countries reacted to the warning signals that were sent to them: Italy suspended its Rome 2024 Olympic bid after Rio-2016. "(Rome) believes that the event represents an unnecessary cost to the city, which is going through financial difficulties. (…) Los Angeles, Paris and Budapest are still on stage. Boston and Hamburg also declined" (O Globo 58).

Table 16 - Total number of articles and topic weight across each journal for the event "Bidding Countries"

Bidding Countries	Articles	Topic weight (%)
O Globo	10	2
Folha S. Paulo	10	2
New York Times	3	2
The Guardian	19	7

(Author´s table)

Table 17 - Timing and proportion of publications for the event "Bidding Countries"

Bidding Countries	O Globo	Folha S. Paulo	New York Times	The Guardian
November	10	10	0	16
October	10	30	0	21
September	30	20	0	16
August	50	0	100	5
July	0	0	0	0
June	0	0	0	0
May	0	40	0	42

	100 %	100 %	100 %	100 %

(Author´s table)

4.4.2 Boxing scandal

Mentioned before in the project governance of Rio 2016, the local Organizing Committee of the Olympic Games did substantial efforts to hire judging expertise from each sports federation. Considering that the largest stage of sports consisted of 28 different sports, the interviewed person highlighted that this commitment was grounded on the intrinsic effort of the local project team to please their main stakeholder, the athletes. After all, their "(…) life-long dedication to reach the world's largest stage of sport should be supported by a serious, objective and professional judging procedure" (Interview).

Nevertheless, the Guardian´s corruption allegations on the eve of the Games and directed towards the jury of the Amateur International Boxing Association (Aiba) demonstrated that despite all planning procedures, the local project team was not on track to conform all athletes. This obviously set aesthetic damages to the team in Rio as the media already started to question the capabilities of the OCOG to guarantee a fair competition. Unfortunately for the local project team, the ongoing claims of wider corruption at the Rio boxing tournament were confirmed during the event. Several dubious matches created outrage over a string of contentious decisions that lead to booing spectators inside the venues, with one of the athletes, Michael Conlan, "(…) gaining notoriety during the Games by showing (obscene gestures) to the jury after losing to the Russian Vladimir Nitikin" (Folha S. Paulo 33).

The fact that the IOC was not directly involved in the judging selection process did not hinder the negative impressions laid upon this project actor. A loss in credibility in one sport is synonym to a loss in credibility in the Olympic brand name, and consequently to the brand holder, the IOC. With that in mind, it becomes understandable that the IOC should be interested in maintaining, in the best possible ways, a stain-free reputational project in regard to the judging criteria. If this image is polished by the project actors' decision to remove several high ranked judges during the event is questionable because no statements were given for such a choice. The New York Times (20) further doubted the credibility of the sport, and as such the project: "Were (the judges) dismissed because of some more serious impropriety like bribery and corruption, (…) or is the shake-up merely a gesture meant to aggrieve aggrieved boxers and fans?"

Notwithstanding the serious aesthetical damages this event brought to the IOC and to the OCOG, the media did not report at high levels regarding this issue (Table 18).

Table 18 - Total number of articles and topic weight across each journal for the event "Boxing scandal"

Boxing scandal	Articles	Topic weight (in %)
O Globo	4	1
Folha S. Paulo	5	1
New York Times	8	4
The Guardian	9	3

(Author´s table)

4.4.3 Crisis

In October 2009, the announcement of Rio de Janeiro as the hosting city of the XXXI Olympiad was followed by a holiday for city and state employees, with tens of thousands of people celebrating on the city's Copacabana beach. An emotional president Luiz Inácio Lula da Silva stated that he never felt so much pride in Brazil, promising that his country would show its greatness to the world.

Seven years later, the Olympic project faced drastically different economic, social and political conditions. The country´s economy shrank by almost 4% of its gross domestic product, with the state government of Rio de Janeiro tightening health, police and education as a result of falling tax revenues. Delayed payments to teachers, doctors and retired state employees prompted strikes and occupations in deplorable schools and hospitals. High ranked politicians and senior executives were exposed in large-scale corruption scandals involving Petrobras, the state-run oil company headquartered in the host city. In Mid-May of 2016, the political paralysis culminated when Dilma Rousseff, Lula's handpicked successor (Lula himself is under investigation), was suspended from her presidential powers and duties while she faced impeachment trial. Michel Temer became acting president, formally taking office on 31st August 2016.

In light of this highly unpredictable and unstainable political spectrum, media coverage around this issue exercised less than two months before the opening of the Olympics. Governor of Rio de Janeiro Francisco Dornelles confirmed a state of "public calamity" - a declaration usually associated with a natural disaster - acknowledging that the state was bankrupt and would be unable to honour its commitment to the Olympics without federal support. "This is everything that we did not want happening at this moment. It's not easy to host the Olympics in the current

Brazilian environment" said Rio's mayor and member of Mr. Temer's party, Eduardo Paes (New York Times 15). The Guardian (213) evaluated "the plea for funds (as) an embarrassment for the host of South America's first Games. and adds to a long list of woes that includes the impeachment of the president, the deepest recession in decades, the biggest corruption scandal in memory, the Zika epidemic and a wave of strikes and occupations of government buildings". A complete collapse of the public system was avoided through the federal disbursement of 2.9bn Brazilian real ($860m), earmarked mainly for security and for the completion of Rio´s subway extensions to transport visitors to Olympic venues. Taking into consideration the economic situation of the country, needless to say were the reactions that this emergency loan brought up around the Olympic project and the Government. As such, the Olympic spirit was marked by tension inside and outside of the venues. Among public "Out with Temer" protests pleading the removal politician whom many accuse of trying to gain power he could never have obtained at the ballot box, torch relays were stoned and invaded. International readership who did not pay significant attention to the news were most lately alarmed when assisting the opening spectacle of the Olympic Games: Booed at opening ceremony, Brazil's acting president skipped to attend the closing ceremony of the Olympic Games. A new appearance on the opening ceremony of the Paralympic Games did not save him from another blameful reception of the crowd: "As uniform as the "ola" that united the spectators of the Maracanã, were the plainly booing's heard (…) at the smallest referrals to the federal government. The president Michel Temer was, once again, greeted with a chorus of boos inside the Maracanã Stadium" (O Globo 93). Competitions inside arenas served not only to watch the best athletes of the world, but they also served as places of political demonstration. "Most worrisome, many say, is what happens after the tens of thousands of soldiers and military police personnel who were dispatched to Rio for the Games go back to their home states. A police union official has warned of strikes should the city´s police force go unpaid" (New York Times 15).

The financial and political situation of the government had a severe financial impact on the OCOG. Brazilian organizers had to cut about $500 million from the Olympic budget — affecting varied aspects of the Games including the pared back opening and closing ceremonies to the athletes' dorm rooms that didn´t have televisions. As such, the OCOG saw no other option than to cut several benefits for the athletes, their principal stakeholder. Furthermore, the change of political power represented a Red Flag for the project team as it forced the revision of several

contracts with the government, like the Venue User Agreements. Even "(…) through the exceptional capability of the local government and the OCOG to attract private partners to fund the Olympic Games, which covered 60% of the budget" (Interview), the financial situation of the OCOG became further evident after the Olympic Games: Half a year later, the electric bill of the iconic Maracanã Stadium is still due to pay, leaving the venue now unoccupied and shut down until payments take place. Nor the OCOG, nor the government are providing any solution.

On the contrary to what a reader may expect, media reporting from local newspapers was way more intense and critic on this topic (Table 19). Among the international newspapers, only the NYT clearly tackled this issue. While most of the news were issued around the proclamation of Rio de Janeiro´s state of emergence up to the Olympic Games, local media continued to report after the event finished (Table 20).

Table 19 - Total number of articles and topic weight across each journal for the event "Crisis"

Crisis	Articles	Topic weight (in %)
O Globo	107	17
Folha S. Paulo	150	26
New York Times	20	11
The Guardian	8	3

(Author´s table)

Table 20 - Timing and proportion of publications for the event "Crisis"

Crisis	O Globo	Folha S. Paulo	New York Times	The Guardian
November	2	4	5	0
October	11	5	0	0
September	9	7	0	0
August	20	24	70	63
July	17	20	10	0
June	31	23	10	38
May	10	17	5	0
	100 %	100 %	100 %	100 %

(Author´s table)

4.4.4 Doping scandal

The Olympic Games were marked by the Russian doping scandal, an important political issue for the IOC and that turned to be by far the most spoken topic for three out of the four analysed journals (Table 21) at the months preceding the event (Table 22). As a headquartered newspaper in the hosting city, O Globo shifted its investigative journalism to areas that were related to the delivery of the Olympic project such as Infrastructure, Mobility and Security.

Accusations were dominantly targeted towards Russia and its alleged state-sponsored doping mechanisms on athletes, an ongoing process since whistle-blowers voiced the German broadcaster Arbeitsgemeinschaft der öffentlich-rechtlichen Rundfunkanstalten der Bundesrepublik Deutschland (ARD) about the scale of Russia's cheating in late 2014. The report exposed findings about a sabotaged and systematic doping on the London 2012 Olympics, where Russian athletes with suspicious doping profiles didn´t suffer consequent monitoring mechanisms from their respective sport federations. In the meantime, a ban from international competitions was set by the sport's governing body, the International Association of Athletics Federations (IAAF). In an effort to bring the country back into the fold for Rio 2016, World Anti-Doping Agency (Wada) suspended an accredited testing lab in Moscow (among others) and created an independent "task force", aimed to overhaul Russia's anti-doping system. IAAF´s decision on whether to lift the suspension on Russian Athletics Federation (RusAF) for the Olympics, set for June 17th, 2016, ruled that Russia had not taken sufficient steps to repair its testing procedures. Individual appeals from athletes to the Court of Arbitration for Sport (Cas) were eventually denied by the institution, and only those who had substantial evidence on avoiding the system were allowed to compete under a neutral flag. However, the publication of the so-called McLaren report on July 2016 proved even larger than-expected doping frauds, showing that the state-sponsored drugs programme infected most sports, not only athletics, during the past two Summer Olympics. Thomas Bach, the IOC president, called the findings of McLaren's report "a shocking and unprecedented attack on the integrity of sports and on the Olympic Games, (representing) a shocking new dimension in doping with an, until now, unimaginable level of criminality". Urged by far reaching calls from athletes, delegations and anti-doping officials to bar the entire Russian team, the IOC came under heaver criticism after choosing to defer that decision to individual sports federations.

Ultimately, 278 participants were allowed to compete under the Russian flag, while other 108 athletes were barred to compete in Rio. As Wada and Cas were targeted by hackers seeking athletes' drug testing data from other nations, President Putin blamed political conspiracy for the current situation: “The Games in Rio will be less shiny without Russians” (Folha São Paulo 231). The New York Times (157) did not hesitate to judge that the partial ban was “(…) greeted in Russia, as is so often the case here these days, with a deep sense of victimhood. But here, the decision only added support for a narrative in Russia´s political culture of grievances that revolves around perceived slights and anti-Russian conspiracies taking places in the outside world”. Short of supporting the standpoint of any party, his accusations were not ungrounded. In point of fact, the host country was also accused on doping related issues: The IOC questioned but dig not deeper onto Brazil’s decision to stop testing its Olympic team in the build-up to Rio 2016, after the nation’s anti-doping agency was ordered to halt its work by Brazil’s sports ministry for most of July.

In the prospect of banning a whole country that was second in the athletics medal table in London, the International Olympic Committee decided differently but damages on reputation were inevitable as “IOC’s response to Russia doping scandal (was) nothing more than a confused mess” (The Guardian 118). The planning process of the OCOG was deeply affected by the several decisions coming from the IOC “(…) because it affected the number of athletes and as such the operations of the Olympic Games. Russia was supposed to be the second biggest delegation of the Games after the United States. On the other hand, the IOC had no control on the internal doping mechanisms of their contractual partner Wada, which clearly failed in his major role in guaranteeing a clear sport. In order to not repeat this situation, a contractual revision should be held” (Interview). At the end of the day, doping was a factor that determined the legitimacy and credibility of several crucial stakeholders within the project environment: Athletes, Delegations, Sponsors, Spectators and the project team itself were more or less affected by the removal of past and recent medals related to doping scandals. The IOC, on his side, suffered aesthetical damages due to its poor managerial capability and lack of decision making in a highly political case.

Table 21 - Total number of articles and topic weight across each journal for the event “Doping"

Doping	Articles	Topic weight (in %)
O Globo	45	7
Folha S. Paulo	93	16
New York Times	73	38
The Guardian	102	37

(Author´s table)

Table 22 - Timing and proportion of publications for the event "Doping"

Doping	O Globo	Folha S. Paulo	New York Times	The Guardian
November	7	3	0	1
October	4	1	1	4
September	0	4	3	7
August	27	17	23	36
July	36	40	42	24
June	16	24	19	14
May	11	11	11	15
	100 %	100 %	100 %	100 %

(Author´s table)

4.4.5 Environmental commitment

Key point of Rio´s Olympic bid was a governmental plan to clean up the Guanabara Bay, one of the city’s most scenic waterways with more than 50 rivers and streams, through a promised 80% cut in the flow of sewage pollution. Finally, society saw an opportunity to invert the deplorable state of its lagoons, where almost 2 million and 14000 companies deploy their daily waste without any sort of treatment. It turned out that one of the events´ biggest legacies had fallen short of its goals: Depicted in the Olympic Candidate file as a 4$ billion heavy commitment, the Brazilian government eventually spent 170$ million over the past seven years. Only one out of a total of eight river treatment units were constructed, while the rest was mainly invested in sewage collecting boats and portable barriers that would partially guarantee clear (or

good looking) waters in competition places. The government shielded wide spreading criticism stating that contracts with sewage treatment companies had to be revised due to clear signs of corruption. However, any further development on this issue had to put on hold due to the financial situation of the city.

Most lately, visitors or athletes became aware after the publication of 16-month-long study ordered by the The Associated Press in July 2015. Experts claimed that athletes would compete in contaminated waters exposing almost certain dangerous health risks, at levels up to 1.7 million times what would be considered highly alarming in the US or Europe. Especially affected was the Guanabara Bay with its Rodrigo de Freitas Lagoon, where Olympic rowing took place, and the Marina Glória, the starting point for the sailing races. Athletes started to take elaborate precautions in a bid to limit contact with the water, but Spanish and Austrian sailing teams were felled by gastrointestinal illness and infectious during training sessions. Brazil´s sport minister Picciani admitted that the bay as a whole had been only 55% depolluted, while Rio Mayor Eduardo acknowledged the failure as lost chance. State Secretary for the Environment, André Correa, described the environmental plan as overoptimistic: “20 million reais (6 million dollars) would be necessary to execute the municipal plans of sanitation affecting the cities surrounding the bay. Money that the state, in crisis, doesn’t have” (Folha São Paulo 295). This did not hinder Olympic officials to refuse relocating any of the events. During days of competition, fortunately no delegation seriously blamed trash and only one athlete faced sickness to water polluting issues.

Newspaper analysis shows that all newspapers did not raise substantial concerns; reporting were scarce (Table 23) and mostly written until August (Table 24). This leads to the clear conclusion that the clear failure of one of the projects biggest legacies will quickly be forgotten if activists’ don´t stand up for it. The Globo (67) newspaper describes it as a “Future of turbid waters”. International and local media should have targeted politicians that risked the health of many stakeholders just for the show, “but Olympic athletes and international visitors will come and go. Remaining will be roughly nine million people who live in the watershed of Guanabara Bay. About half of them are not hooked to sanitation systems.” (New York Times 96).

With all its possibilities, “the OCOG pressured the government because the alarming news about Guanabara´s high levels of pollution lead to several nonappearances from athletes. For a spectator, the iconic bay was a success. From a project management perspective, the

government clearly failed in his technical responsibilities because it won the right to host the Olympics based on premise it did not fulfil" (Interview). At the end of the day, this environmental challenge became once more a technical failure in the project committed by the Brazilian government. The exposure that such an event would bring apparently was not enough to motivate project managers to really tackle this engineering issue. Instead, a temporary solution was adopted through an investment in trash collecting boats that did the necessary job to guarantee accepting conditions for competition.

Table 23 - Total number of articles and topic weight across each journal for the event "Environment"

Environment	Articles	Topic weight (in %)
O Globo	27	4
Folha S. Paulo	12	2
New York Times	7	4
The Guardian	4	1

(Author´s table)

Table 24 - Timing and proportion of publications for the event "Environment"

Environment	O Globo	Folha S. Paulo	New York Times	The Guardian
November	0	0	0	0
October	7	0	0	0
September	15	8	0	0
August	19	8	29	100
July	26	58	57	0
June	22	17	14	0
May	11	8	0	0
	100 %	100 %	100 %	100 %

(Author´s table)

4.4.6 Infrastructure

For the sake of this analysis, the Infrastructure category included news related to the Olympic park, the Olympic Village, other sportive venues and the construction of urban

infrastructure projects. Apart from a common lack of journalism after the staging of the events (Table 25), Infrastructure reporting across the four analysed journals showed distinctive configurations: International media had considerable lower topic weights than the other counterpart (Table 26), an understandable pattern when taking into consideration that Brazilian newspapers logically had better access to information on the daily advancements of the infrastructural undertakings. Even between the local media, it is observable that the headquartered newspaper in the hosting city did greater efforts to report on Infrastructure.

Approximately one month before the opening ceremony, O Globo (58) informed that "(…) between all the challenges ahead of the start of the Olympic Games, the conclusion of venues of competition is no more on the bucket list of organizers. In exception to the velodrome (97%) and the tennis centre (97%), the Olympic Village of Barra is a practically completed construction, with 99% execution according to the city government". Despite the Guardian´s (63) accusations of "Olympic organisers (that) have put deadlines ahead of lives, resulting in the deaths of almost a dozen construction workers (…)", the weekly audits from a special team ordered by the interim president seemed not to understand that the reality around the construction projects was way different. Against all the guarantees depicted before in Globo´s statement, a change of contractor about two months away from the start of Games resulted in an unfinished delivery of the velodrome. Athletes had to train under heavy construction noises as preparations were conducted until the last minute, which did not impede clear signs of an unfinished product during the first days of competition. However, prime target of local and international media was the "Athletes´ Village, a Nonstop Effort to Stem Flow of Complaints" (New York Times 98). Said to be the biggest ever at an Olympics, the complex of 31 buildings welcomed its guests with blocked toilets, leaking pipes and exposed wirings. Delegations such as Australia and Argentina refused to move in until improvements were made, moving to nearby hotels or apartments. In order to allay concerns, an extra 630 member maintenance staff and more than 1,000 cleaners had been engaged to fix the problems and clean the village. As if the exposure of all the technical flaws of such a crucial infrastructure was not damaging enough for the project, the excuses given by the responsible persons to Folha São Paulo (261) were even more blameful. Spokesperson of Rio 2016, Carlos Miranda affirmed that "(…) it is natural that fixing have to be made. I am almost placing a jumping kangaroo in front of the Australia building so they feel like home." City Mayor Paes followed and affirmed that "The Village is not in the state that Australians are

describing. The Australians are being the most closed minded country in loving Rio de Janeiro." Without supporting any side, frustration reached levels where delegations such as Germany, Italy, and USA even paid for the fixings in their respective buildings to accelerate the process. Also consider that only 40% of those buildings were sold as the Games finished. Completely neglected by international media but widely investigated by local media, was the delivery of the Autodrome Village to the former habitants of the Olympic Park territory: As a legacy project, the Autodrome Village was delivered to the banished low class families with no functioning electrification.

Referring to the Olympic Park, the most prominent headline was the light injuring of three spectators after a TV camera hit ground. Yet, Brazilian media further reported on the park after the Olympic Games finished. Intended to be managed through a 25 year public-private partnership, the government was unable to attract a private investor for both the Park and the iconic Maracanã Stadium. Once again, wide-ranging critics questioned the financial viability of such a particular megaproject in a country that already inherited several white elephants with the hosting of the World Cup in 2014. O Globo (2) critically compared the Olympic project to a finished party atmosphere uttering that "during Rio 2016, all the spotlights were set upon the Park in Barra da Tijuca. Two months after the competitions, the scenario is of complete abandonment (…), with accumulated materials of provisional structures from shops and restaurants that were not collected.

This issue evidenced the technical difficulties the government faced with the delivery of the Olympic Village, the Velodrome and the Autodrome Village. None of these projects were delivered on time and according to the objectives set. The previously described dispute between Olympic officials and the Australian team also demonstrated that local planners seemed to have a different perception regarding a satisfactory delivery of the project. On top of that, I would even say that local planners did not show any perception of quality as the Autodrome Village was delivered with no functioning electricity. Take note that the infrastructural undertakings affected a large stakeholder environment: Athletes, Delegations, Spectators and the local community suffered with this incident. At last, the infrastructure showed to be an economic sublime for the project because the government is still struggling to get a financial return from its investment as no private contractor is willing to accept the concessionary conditions.

Table 25 - Timing and proportion of publications for the event "Infrastructure"

Infrastructure	O Globo	Folha S. Paulo	New York Times	The Guardian
November	6	2	0	5
October	1	6	0	15
September	9	5	0	5
August	37	25	73	50
July	31	36	20	20
June	7	16	7	0
May	9	9	0	5
	100 %	100 %	100 %	100 %

(Author´s table)

Table 26 - Total number of articles and topic weight across each journal for the event “Infrastructure"

Infrastructure	Articles	Topic weight (in %)
O Globo	141	22
Folha S. Paulo	85	15
New York Times	15	8
The Guardian	20	7

(Author´s table)

4.4.7 Mobility

The Mobility category included all articles associated to transportation projects, namely the Metro Line 4 extension, the Bus Rapid Transit corridor extensions and the Light Rail Vehicle construction. Also collected were news of mobility operations established during the Games.

Every Olympiad arises logistical challenges for a city and its planners. London 2012 showed to be no different, with long traffic jams and congestions affecting the whole population

during days of competition. While this problematic issue is hardly avoidable, remember that the logistics and mobility procedures for Rio 2016 officials and athletes were a task of the OCOG. Unfortunately, the local project team seemed incapable of meeting their clients' expectations as "(…) there (had) not been enough cars at the ready, and many drivers assigned to ferry officials around (did) not know the way to various venues" (New York Times 43). Those critics clearly highlighted the technical failure (and sublime) of local planners to forecast athletes and officials demand for dedicated transportation.

However, the aforementioned complaints were a much smaller problem for the OCOG when compared to the governmental responsibilities in the area of transportation. All those commitments were, to a greater or lesser extent, delivered with delays. The most prominent and referred examples were the extension of the metro line: A megaproject with the risk of not being delivered on time for the Games. Key legacy of Rio de Janeiro´s Olympics, the metro line 4 eventually opened four days ahead of the opening ceremony, and only due an extra funding sponsored by the interim president. Besides wide spreading critics on the fact that this inaugural was temporarily limited for Olympic visitors only (project planners applied the same decision on the BRT), investigations were laid upon the dubious selection of construction partners that played into the "(…) approximately costs of 9,7 bn reais. This value represents almost the double of the initially estimated 5bn reais in the initial plans" (O Globo 213).

Hence, this particular megaproject showed what was already mentioned before in the literature review: Beyond being two years after schedule, this project was also facing considerable cost overruns which up to the date of the publishing were not clearly revealed. At the end, the Mobility category highlighted the technical failure from governmental planners as well as from the OCOG to execute their tasks regarding this matter.

Up until the competition on August (Table 27), articles were mainly based on the current state of the transportation systems. Then they shifted towards OCOG´s technical failures. Note the only Globo paid substantial efforts to report on this issue (Table 28), a logical behaviour for a headquartered newspaper in the hosting city. After all, Globo focussed on fundamental issues for Rio de Janeiro like infrastructure, security and crisis.

Table 27 - Timing and proportion of publications for the event "Mobility"

Mobility	O Globo	Folha S. Paulo	New York Times	The Guardian
November	3	0	0	0
October	3	7	0	0
September	16	7	0	0
August	29	29	100	67
July	24	18	0	0
June	15	32	0	0
May	10	7	0	33
	100	100	100	100

(Author´s table)

Table 28 - Total number of articles and topic weight across each journal for the event “Mobility"

Mobility	Articles	Topic weight (in %)
O Globo	116	18
Folha S. Paulo	28	5
New York Times	2	1
The Guardian	3	1

(Author´s table)

4.4.8 Ticket sale fraud – Pat Hickey

The 71 year old Irish Olympic executive Pat Hickey had been accused for fraudulent ticket sales. More explicitly, he operated a ring with the Dublin-based Pro10 Sports Management in order to funnel overpriced tickets intended for use by the Irish committee, and not authorised for resale, to the international sports hospitality company THG Sports. According to the New

York Times (40), the arrest "(…) took place just before 8 a.m. at an oceanfront hotel where top Olympic officials are staying. In an action evoking the early-morning arrests of soccer officials in Switzerland last year, Mr. Hickey was taken by surprise as he answered the door to his hotel room unclothed, later emerging in a white bathrobe".

As one of the International Olympic Committee's most senior figures for the last two decades, head of the Olympic Committee of Ireland since 1989 and also head of the European Olympic Committees, Pat Hickey´s arrest to a maximum security prison in Rio de Janeiro became a highly political sublime for the IOC and the government. The IOC, head team of the project, saw no other option than to immediately suspend "on a temporary basis" Hickey´s role after heavy accusations of alleged ticket-touting, conspiracy and ambush marketing. Furthermore, three members of the Olympic Council of Ireland (OCI) were suspects of being involved in the illegal sales, but eventually got their passports returned after those were seized for a week. While all those accusations overshadowed Ireland's participation in the Rio games, the release of Mr. Hickey two weeks after the arrest did not lessen pressures on the IOC. The particular role of Mr. Bach was questioned by local authorities as Ireland´s extra seat allotment was granted after the identification of an e-mail exchange between him and Hickey. In times of unveiling the truth behind management practices from organizations such as the FIFA or the IOC, such allegations unwillingly harm the image and the aesthetical sublime of the project and put the respective teams under an unwanted spotlight. Supporting the view of New York Times, The Guardian (63) perfectly shows how quickly a distinct project team can be associated to the corruptive practices of another organization: "Pat Hickey allegations remind world that IOC is as out-of-date as FIFA. The sporting spectacle of the Rio Olympics has not managed to obscure the myriad scandals of corruption, doping and corporate glutton." Whether the accusations directed to the IOC are true or not, a negative and mistrustful signal is sent to the whole stakeholder environment: Contractors, sponsors, suppliers, clients and other partners start to question the project owner´s honesty.

Brazilian authorities still have ongoing police investigations, but the local newspapers went even further to compliment "the Irish government (that) initiated an independent investigation regarding the illegal ticket reselling, expanding the inquiry to the Games of London 2012 and Sochi 2014" (Folha São Paulo 72). Mr. Hickey's passport was retained for four further months, until the Association of Olympic Committees (ANOC), of which Hickey was vice

president, agreed to temporarily loan a 410.000€ bail payment for him to return home for medical reasons. For the local project team, this particular incident was regarded as positive because "(…) it boosted the confidence regarding the investigative capacity of local authorities to deal with complex and globally exposed frauds" (Interview).

In contrast to the 1% weight of this topic to the other three journals, the Pat Hickey incident seized 5% of project related reporting from the Guardian (Table 29). One possible explanation for this observation is the British origin of the aforementioned newspaper, which eventually has higher interest to investigate a sensitive topic involving an Irish citizen.

Table 29 - Total number of articles and topic weight across each journal for the event "Pat Hickey"

Pat Hickey	Articles	Topic weight (in %)
O Globo	5	1
Folha S. Paulo	7	1
New York Times	2	1
The Guardian	13	5

(Author´s table)

4.4.9 Ryan Lochte

Shortly after the last Olympic swimming Games took place, American swimmer Ryan Lochte and his teammates announced to be victims of a gunpoint robbery while returning to the athletes' village from a party. The culprit was supposedly a Brazilian police officer. However, local authorities presented video evidence contradicting Ryan Lochte, who hid the truth about what ended up being a drunken incident of vandalism at a gas station by him and his colleagues.

After Pat Hickey´s arrest, the Ryan Lochte story was another incident that created a buzz in the media about a member of the Olympic community. Notwithstanding the fact that this was only a hot topic during the month of August (Table 30), there is a differentiating observation between local and international media: Brazilian newspapers did not meet, as maybe predicted, the expected level of reporting regarding this incident, whereas The Guardian and the New York Times seemed to be more sensitive to the issue by registering respective topic weights of 7% and

7% (Table 31). According to the British newspaper (61), “Ryan Lochte, swimmer, reality TV star – and now diplomatic incident (…) always had a knack for catching headlines but after his tale of robbery in Rio was rumbled they have been far from flattering”.

The Ryan Lochte case turned out to be a highly delicate and political topic between the Brazilian government and the highest represented nation of the Olympic Games, Team USA. After all, the New York Times (32) predicted “(…) a dispute that quickly transcended sports, emerging as a point of tension between the United States and Brazil as the authorities in Rio de Janeiro faced scrutiny over their security preparations for the Olympics in a city on edge over a crime wave and gun battles between drug gangs and the police”. The aforementioned statement correctly expanded the perspective on the project environment, unveiling the unneglectable aesthetic damage the city suffered from this incident. Remember that in light of the ever existing violence in the host city, the projects´ viability was largely questioned by the media long before the event took place. The Brazilian government embraced those concerns and undertook the biggest mobilization of security personnel ever. Suddenly, the initial claims of the alleged victims overshadowed those efforts: In any case, Ryan Lochte´s version reported of a gunpoint robbery undertaken by a police officer. This episode unleashed a discussion around Brazil, where many Brazilians themselves often lament their exposure to alarming levels of violent crime and police corruption.

Plausibly, local reactions were strong as local investigation led to the incontestable evidence that one of the most-decorated swimmers in American history, with 12 overall medals over four Olympics, was making up a story: “We saw our city stained by a fantastical version,” said Fernando Veloso, the Civil Police chief for the state of Rio de Janeiro. While Lochte left the country shortly before a judge ordered the confiscation of his passport, two other swimmers in the 'robbery' case were taken off from a flight at Rio airport. Later on, Rio´s Mayor accepted the statement of The United States Olympic Committee (USOC), who publicly expressed regret about the incident: “On behalf of the United States Olympic Committee, we apologize to our hosts in Rio and the people of Brazil for this distracting ordeal in the midst of what should rightly be a celebration of excellence” (O Globo 152). Lochte has been charged by filing false robbery report that carries a maximum penalty of up to 18 months in prison, tried in absentia if he doesn’t show up in Brazil. In addition, he lost four of his major sponsors, got banned from swimming for 10 months and will forfeit $100,000. Lochte´s team-mates were given four-month suspension.

Both the ticket sale fraud as well as the Ryan Lochte incident demonstrated how suddenly a project can turn into a serious political or diplomatic incident, caused by fraudulent or inappropriate actions of one person inserted in the project environment. In this particular incident, it was hardly expected that a vandalized restroom at the gas station and the subsequent confrontation between the athletes and the security guards would create such a thrill in newspapers and in the local community. In viewpoint of the interviewed person, the OCOG appraised the professional and disciplined approach from the local authorities: “Thankfully for the public image of the project, our police authorities did a prestigious job by being able to review surveillance videos and witness testimonies.” As a conclusion, this particular event became a political and aesthetical sublime for the government, characterized by a professional and sensitive work conducted by local Brazilian authorities to restore the harming image the victims laid upon the city after their allegations.

Table 30 - Timing and proportion of publications for the event "Ryan Lochte"

Ryan Lochte	O Globo	Folha S. Paulo	New York Times	The Guardian
November	0	0	0	0
October	0	0	0	0
September	13	0	7	10
August	88	100	93	90
July	0	0	0	0
June	0	0	0	0
May	0	0	0	0
	100 %	100 %	100 %	100 %

(Author´s table)

Table 31 - Total number of articles and topic weight across each journal for the event “Ryan Lochte"

Ryan Lochte	Articles	Topic weight (in %)
O Globo	8	1
Folha S. Paulo	13	2
New York Times	14	7
The Guardian	20	7

(Author´s table)

4.4.10 Security

Budget cuts, growing unemployment rates and a deep folded recession led to an uptick in 2016 Rio de Janeiro´s crime scene, an aspect that project officials seriously concerned when this city emitted its Olympic Candidate File in 2009. Largely covered by local media until the closing ceremony of the Olympic Games (Table 32), almost one out of five articles in Globo or Folha São Paulo were related to this topic (Table 33). On the other hand, international media clearly shifted its interest to other events.

This does not mean that international readers or upcoming visitors were not informed about the host city´s problems. Weeks before the Olympic Games, Rio 2016 delegations felt violence up close as was the case (among others) of an Australian Paralympic champion who got robbed at gunpoint while training in the host city months before the opening ceremony. Moreover, parts of a mutilated body have washed up on the sands of Copacabana, meters away from the Volleyball venues. Delegations called on Brazilian authorities to deploy extra security ahead of the Rio de Janeiro games, a request that could be fulfilled only after the 895m$ emergency loan from Michel Temer to guarantee local safety operations. Interventions also included the arrestment of several suspects of terrorism, a growing concern as France suffered several attacks in July 2016. In light of that, the interim president personally reinforced his intentions greeting upcoming visitors in a video publication "(…) as part of an effort to minimize the problems of the city, 27 days ahead of the Olympics" (O Globo 443). Until then, "(…) helicopters have been grounded and more than half of the civil police's fleet of cars has been idled in a bid to save on gas. Even officers' salaries have been delayed. Rio de Janeiro's security forces (were) so pressed for funds that some (had) to beg for donations of pens, cleaning supplies and even toilet paper, fuelling worries about safety at the world's premier sporting event" (The Guardian 198).

At the end of the day, an approximately 85000 strong police and military force was deployed, twice the amount when compared to the former event in London. Notwithstanding the occurrence of several incidents during the days of competition (Table 34), no athlete or visitor suffered major harm. Safety concerns became also a responsibility for the OCOG, as they were responsible for security staff inside the venues. However, the local team "(…) suffered with the lack of private security and as such, the government helped with additional public forces inside

the places of competition" (Interview). Of unique responsibility for the Brazilian government, the security deployment became a highly political, economic and aesthetical sublime in the Olympic project. Faced by the internal pressures from the media, the government saw no other option than to perform big unexpected investments in order to mitigate concerns before the start of the Games. Critics that ultimately damaged the image of the project even before the opening ceremony.

Table 32 - Timing and proportion of publications for the event "Security"

Security	O Globo	Folha S. Paulo	New York Times	The Guardian
November	1	0	0	0
October	4	2	0	0
September	8	2	0	0
August	30	22	69	56
July	41	58	23	11
June	12	10	8	28
May	4	6	0	6
	100 %	100 %	100 %	100 %

(Author´s table)

Table 33 - Total number of articles and topic weight across each journal for the event "Security"

Security	Articles	Topic weight (in %)
O Globo	121	19
Folha S. Paulo	99	17
New York Times	13	7
The Guardian	18	6

(Author´s table)

Security incidents during the Olympic Games
Minor thefts on athletes, despite being ordered to follow a number of strict safety protocols.
Two stray bullet were fired into media tent at equestrian venue.
Police killings of favela residents as one officer got shot by local habitants.
Attack on an Olympic media bus on highway, in which three journalists suffered minor cuts.
Thefts in the Olympic Village.

Table 34 - Security incidents during the Olympic Games

(Author´s table)

4.4.11 Ticket Sales performance

Of unique responsibility to the Organizing Committee of the Olympic Games (OCOG), the ticket sales performance of the Olympic Games remained an unknown variable for the press. One week prior to the opening ceremony, local newspaper Folha de São Paulo (203) reported that demand was only four points away from the established sales target of 84%. A goal that was of extreme importance because it was "(…) part of the estimated revenues to close the balance sheets from the organizing team, which predicted that 16% of pending bills are paid through the ticket selling." Taking into account a publication from Globo (573) in late May, it can be concluded that the local project team was able to boost sales by 23% under the last two month prior to the start of the event.

However, international media doubted on the reliability of those numbers. The New York Times (109) pronounced that "(…) after one week of competition and some of the smallest crowds in the modern history of Olympic track and field, it seems fair to think the sport could have done better (selling a bunch of tickets when Usain Bolt runs does not count)." Venues were marked by empty seats, and excuses rapidly followed by the local press. Among the motives raised by analysts were the distance and difficulty of transportation to some competition venues, the lack of interest from Brazilians to some less popular and traditional sports in the country, the cost of the tickets, the entry fee paid to the sponsors, the distribution of tickets to public school students and the negative news that could have drowned the interest from foreigners. As one of the most critic journals on that present matter (Table 35), the Guardians kept an unimpressed attitude towards all those reasons and even accused the distribution of 240000 tickets to public school students as a desperate attempt to fill the Olympic venues in less popular sports such as golf, rugby sevens and hockey (even particular soccer matches were marked by half-occupied stadiums). Although never questioning the social nature of the act itself, denunciations were targeted towards the OCOG. The local project team grounded its decision to hand out the tickets under the apparent satisfactory sales performance that was hardly ever observable. This aggressive positioning from the Guardian towards the projects selling performance lead to several direct references from local newspapers, which seemed to be anxious on the repercussions that such suspicions may lay on the public image of the project. O Globo even came to highlight the

article of the British journal called “The athletics elite turns op on time but Rio seems still to be in bed”.

Towards the lasting and irrepressible memory that the unoccupied venues, fears for Rio´s Paralympics were not smaller. One month prior to the play out, president of International Paralympic Committee Sir Philip Craven classified the situation as precarious. Despite prices as low as 10 reais – a quarter of the cheapest seat prices at the Olympics, organisers revealed that only 12% of the tickets have been sold and that the event had to be downsized amid the most challenging circumstances faced in its 56-year history. Parties have been cancelled, big screens taken down and 1,900 temporary staff laid off. The number of seats has also been reduced from 3.4 million to 2.5 million units. In addition to that which has already been described, the responsible project actors failed to pay grants of up to $8m to allow smaller countries to travel to the Games. The IPC saw no other solution than to accept $46.5m in public money, a highly political debate considering the nations suffering from the worst recession in decades. Isolating the project from the political tone, Rio 2016 turned out to the second-most attended Paralympic Games in history with total sales up to 1.8m, surpassing Beijing in 2008 with 1.7m tickets sold.

Referring to the interview, ticket sales was one of the biggest concerns for the OCOG because it represented one of their main source of revenue. As such, this event became a major economical factor for the local project team. Furthermore, the empty venues also put the local project in a bad spotlight because provided statements before the Games seemed not to prove the reality throughout the days of competition. The local team projected its internal forecasts on the assumption that 90% of total sales were going to Brazilian spectators. With that in mind, the late peak of sales could be explained “(…) by a combination of the negative influence from the international media and the Brazilian cultural habit of delaying expenses”. Notwithstanding the OCOG´s satisfaction with its concerted publicity to boost sales, they now face the challenge of retrieving failed compensations to fans. This process is undertaken manually because the local project team lost access to the sales database as soon as the contract expired with the responsible service provider.

Table 35 - Total number of articles and topic weight across each journal for the event "Ticket Sales"

Ticket Sales	Articles	Topic weight (in %)
O Globo	30	5
Folha S. Paulo	37	6
New York Times	3	2
The Guardian	28	10

(Author´s table)

4.4.12 Zika

Brazil remains the country most-affected by Zika, a mosquito-borne virus proven to cause a severe birth defect that results in babies born with abnormally small heads and underdeveloped brains. In rare cases, it leads to paralyses or death. As a result, in February 2016 the World Health Organization (WHO) declared Zika as a public health emergency of international concern (PHEIC). Fears were grounded on the potential global spread of the virus by the influx of Olympic visitors to the Brazilian city. Travel restrictions on Zika-affected countries were not issued, but expectant mothers had been advised not to travel to avoid the Olympic Games.

Despite the fact that this virus-infected mosquito was already discovered in the late 40s´ in Uganda, W.H.O´s recent proclamation to Zika deeply affected the projects´ image. All of a sudden, the marvellous city of Rio de Janeiro was reported as an epicentre for this particular virus-infected mosquito. Rio 2016 organisers were judged after rejecting calls from 150 of the world's leading scientists to reschedule the Olympics. According to The New York Times (171), this decision "(…) highlighted the long collaboration between the W.H.O and the International Olympic Committee, (…) an overly close relationship that left the health agency to be impartial in Olympic matters."

With six months left for the hosting city to welcome visitors from the whole world, the timing of the Zika threat couldn't be more inadequate for the project. Unmistakeably reflected by the topic weight of the issue, the international media put more emphasis on this particular topic than its local reporting counterpart (Table 36). This observation can be explained by the fact that the local community was ever since subjacent to this mosquito, and as result the Zika virus "(…)

resulted in a precipitated, prejudiced and unfair portrayal undertaken by the international media" (Interview). The Guardian as well as the New York Times enjoyed renewed interest on this particular topic since readership came mostly from North-American or western countries. Distant from the actual reality of Rio de Janeiro, expected visitors feared about the potential disease that up do this date has no functional or scientifically proven cure to eliminate the virus.

Costly manoeuvres were necessary to protect the project from further international scepticism, with the Brazilian government performing the biggest military mobilisation in the nation´s history: 220,000 army, navy and air force personnel as well as 315,000 public officials have been called to actively combat the mosquito and to further educate its society. Folha de São Paulo (447) highlighted this action and cited their health minister, who "(…) alleged that the efforts to control Aedes Aegypti helped to reduce in 90% the number of accused infections of Zika in Rio and further reinforced that, historically speaking, mosquito based diseases is low during August, when the Olympic Games take place." The interview further revealed that the IOC, in his major consultant role, applied huge pressure on the OCOG. The result was the implementation a special team and a phone line in order to deal with all possible question marks around this particular issue. Moreover, the local project team and the government saw itself force to invest heavily in marketing campaigns with the purpose of reducing the negative impressions created by the media. In the face of all those efforts, the Olympic project, holder of one of the most valuable brands of the world, still seemed unable to attract the best international athletes for the largest sportive event in the world. Prominent tennis and golf athletes, such as Rory McIlroy, refused to attend Rio 2016 due to fears of contamination. The Guardian (186) spotlighted this choice, stating that "(…) Ilroy delivered the most withering criticism of golf's inclusion in the Olympics, suggesting the sport was irrelevant in the context of the Games and also admitting he was "not sure" whether he would even be watching it". After a 112 year absence from the Olympic Games, this obviously led to severe repercussions for the International Golf Federation (IGF) and its reborn modality.

Conclusively, the Zika threat deeply affected both the government as well as the local project team in aesthetical and economic terms. Surprised about the virus´ unexpected yet global impact on athletes and the tourism industry, projections on the number of tourist arrivals and on athletes' attendance became increasingly difficult as the Games approached and Zika news intensified. As soon as the Games started however, this threat on the project dissipated because

across all different journals, Zika was only a raised issue up until the month of August (Table 37). Therefore, a positive but unpraised light shines upon the project actors that confirmed the predictions from the newly elected sports minister expecting close to zero cases of Zika during the Olympics, later confirmed by the WHO in September 2016.

Table 36 - Total number of articles and topic weight across each journal for the event "Zika"

Zika	Articles	Topic weight (in %)
O Globo	21	3
Folha S. Paulo	36	6
New York Times	30	16
The Guardian	34	12

(Author´s table)

Table 37 - Timing and proportion of publications for the event "Zika"

Zika	O Globo	Folha S. Paulo	New York Times	The Guardian
November	0	0	0	0
October	0	0	0	0
September	5	3	3	0
August	14	3	10	3
July	29	25	37	24
June	33	42	33	29
May	19	28	17	44
	100 %	100 %	100 %	100 %

(Author´s table)

5. CONCLUSIONS

In order to analyse the principal events occurred during the realization of the Olympic Games in light of megaproject theory, it should be first understood which Project Management constructs can better assess the main conceptual undertakings.

The Olympic Games are beyond any doubt a megaproject. To no surprise, key characteristics such as large commitments involving massive sums of investment and a numerous surrounding stakeholder environment were also clearly present in this project. Still, Olympics deserve a special attention that up to this date does simply not exist or can be at best evaluated as insufficient. While the modern academic focus of literature lies on the conceptualization and explanation of the inherent growth of complexity and uncertainty in even bigger becoming construction projects, the largest stage of sport is widely neglected. Remember that also this particular type of megaproject is increasing: Compared to the Olympic Games of Antiquity, the Modern Games are secular, hosted every two years in another country, of larger duration and open to all athletes of the globe. Nowadays, winter editions are only smaller to the Summer Games when referred to the number of athletes. Other than that, the never experienced investments in both winter and summer editions mean that every two years in some corner of the world, a new sportive megaproject is erected. As a matter of fact, Sochi 2014 demonstrated that various unexpected factors caused the budget to expand from an estimated US$12 billion to actual US$51 billion, making Sochi the most expensive Olympics in history. With the absence of an acknowledgeable paper on this particular event, I can only assume that project actors were once more overrun by the complexity and uncertainty surrounding such a megaproject. Like Rio 2016, projects that require a close decade long connexion, coordination and planning of three main actors: The International Olympic Committee, the Organizing Committee of the Olympic Games and the Government. Like Rio 2016, projects of worldwide exposure where management is meticulously over watched by record breaking activities from international and local media: A stakeholder which that does not always stay to a truthful reporting style, misrepresenting main responsibilities around the project and closing still ongoing issues. For that reason, an interview was conducted in order to clearly understand the responsibility matrix around Rio 2016.

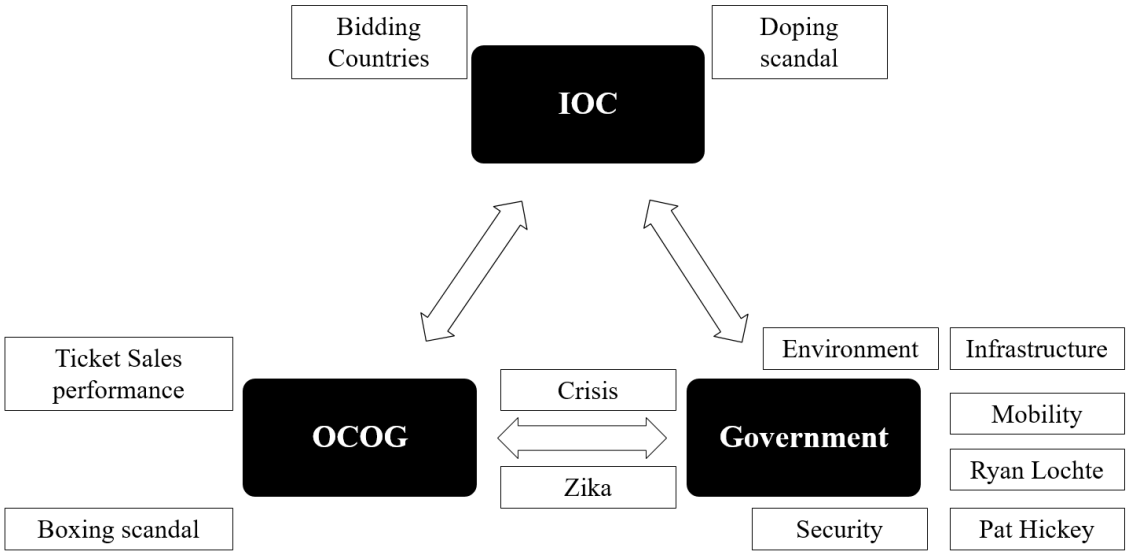
Here, I even dare to admit that the Olympic Games are more complex than any infrastructural project in the future. No matter how expensive and how technical those

constructions will be, they will never reach the dynamics and density of an Olympic project. My statement is grounded on one simple, yet up to this date unreported, fact. The Olympic Games as a megaproject are more than a colossal construction project. Of course, billion worth new venues in the Olympic Park, transportation systems around the whole city and Olympic Village buildings in Barra de Tijuca were built. Otherwise the event would not take place anyways. But the scope and the challenge to deliver a final valuable product to the society and its environment is far superior to any traditional and infrastructural megaproject. But what is value or success of an Olympic project? A record setting show from athletes? An unforgettable party between the local community and visitors? Is it the delivery of infrastructures on budget and on time?

Adopting a management perspective but without any clear adopted definition from literature, I would say that a successful hosting of the world stage of sport is synonym to a clear understanding and professional handling of all the topics raised throughout all the stages in the project environment. While this definition could be translated to a traditional megaproject, we could perfectly agree that topics raised in Rio de Janeiro were far more diverse. As showed during data analysis, stakeholders were numerous, varied and applied pressures that were directed to one or more project actors at the same time. During the preparatory phases of Rio 2016, hardly anyone predicted that the biggest threat in the stakeholder environment would come from a mosquito, which became even more powerful after respected medics requested the cancelation of the event. This threat in combination with the delicate political and financial and situation of the country forced the government and local project managers to reach beyond their boundaries (and pockets), who tried to avoid by all measures the negative aesthetical images laid upon the hosting city. The violent state of the city turned to reach even higher political dimensions after Ryan Lochte´s incident alleging a gunpoint robbery by a police offer. At the same time crucial infrastructures and transportation systems, such as the Olympic Village and the Metro, turned to be a technical headache for the Brazilian government until the early beginnings of the Games. The IOC was also forced to political encounters ahead and after of the opening ceremony, which tried to keep an honourable aesthetic position in times of unveiling the truth of dubious management practices: The Doping scandal, the Pat Hickey case as well as the Tokyo bid audit were issues that deeply questioned the integrity and honesty of the IOC within the stakeholder environment. On the other hand, the closing ceremony does not mean that the project is completed. At present times, the OCOG is negotiating with past contractors and suppliers as their

main source of revenues, ticket sales, was apparently low. The environmental legacy of the project, as of the big promises of the Olympic project, is unfortunately worthless to mention because the Brazilian Government once more decided not to pay attention to this long lasting problem of the Guanabara Bay.

Figure 4 - Project related events in the overall context of Rio 2016



(Author´s figure)

As illustrated in Figure 4, most project related issues were targeted towards the Government. Events such as the crisis and the Zika threat directly impacted the OCOG and the Government, while other were clearly targeted towards one project actor. A closer look on this portrayal also shows that the surrounding stakeholder environment around each of these events would be enormous, leading to a huge stakeholder map depicting only 7 months of the project. This line of thought goes in hand with the inherent complexity of megaprojects. Relationships are not only diverse through the lifetime of a megaproject, but new interactions may also come up as such unpredictable events emerge. Events that enhance the risk of the project as a whole. We also observed that such interactions can have different impacts on the project actors, who sometimes even seem to be overwhelmed by the complexity of the entire system: The Doping case was clearly an issue that the IOC was nothing more than a confused mess, lacking managerial

decision making. Under sever time pressure, all sport federations were obliged to decide individually on each Russian athlete if he would be allowed to compete or not.

At the end of the day, a portrayal of Rio 2016 Olympic Games´ main project related issues was only possible by adapting Flyvberg´s four sublimes of traditional (infrastructural) megaprojects to each main project actor (Table 38). In this version, the dimensions are more related to the Olympic project as a whole, to whatever it constitutes under the lacking academic literature. Stakeholder theory or Institutional theory would never be able to classify the project in this apparently simple manner, because an Olympic project can be regarded as an aggregation of a lot smaller projects that those theories fail to explain. Those theories do indeed look at one project but as mentioned before, the Olympic project is more than that. The Metro extension, the Olympic Village construction, the security deployment, the ticket sales performance can all be considered an individual project. They all have a start and a due date, with clear and distinctive objectives.

This simple picture below can be regarded as pioneering in the areas of Olympic Games because nobody strictly investigated what was really said and reported on the project. Some general assumptions about pressures and priorities from international and local media were refuted. Still, this table is only a portrait, a static description of a huge project under a specific seven month time frame. Further description on how each of these issues, or were solved is only possible a strict application of the two aforesaid theories to each event.

Table 38 - Project – related events and their political, aesthetical, economic and technological impacts on the main project actors

	IOC	OCOG	Government
Political	(1) Bidding Countries (4) Doping (8) Pat Hickey		(3) Crisis (10) Security (8) Pat Hickey (9) Ryan Lochte
Aesthetic	(1) Bidding Countries (4) Doping (8) Pat Hickey (2) Boxing scandal	(11) Ticket Sales (2) Boxing scandal	(5) Environment (9) Ryan Lochte (10) Security (12) Zika
Economical		(3) Crisis (11) Ticket sales (12) Zika	(3) Crisis (6) Infrastructure (10) Security (12) Zika
Technological			(5) Environment

			(6) Infrastructure (7) Mobility

(Author´s table)

6. RECOMMENDATIONS

As already stressed out, my personal desire is to expedite an academic focus dedicated to this type of megaproject. Up to this day, there is no consensus on the definition of an Olympic Games project and what its factors and criteria of success are. With that in mind, a first yet crucial step would encompass a qualitative research on the different perspectives across several stakeholder groups inserted in this project environment. Only then a commonly accepted definition of an Olympic project can be put for further discussion.

To continue the stream of stakeholder management in this sportive event, an appraisable approach in literature would encompass the comprehensive mapping of a stakeholder environment consisting of multiple actors, both public and private, with conflicting interests (Aaltonen & Kujala, 2010). Classification methodologies could follow Mitchell et al.'s (1997) notable stakeholder salience model, developed to characterize and classify stakeholders by considering three stakeholder attributes of power, legitimacy and urgency. Surpassing researcher´s difficulty of obtaining information in regard to stakeholders' attributes, behaviours and interactions, a final approach on SM would englobe an extensive study on the mutual adjustments made by the actors placed in the Olympic Games environment (Morris, 2013). More specifically on their strategic response shaping mechanisms (PMI, 2013).

In light of behavioural studies, institutional theory could be another perfectly matching theory for the Olympic Games. Applied to the three main actors, it would be interesting to investigate Scott´s (2012) behavioural process of social structures among the three pillars (Scott, 2004): regulative, normative, and cultural-cognitive elements. The fact that institutional theory recognizes institutions not only as social structures, but also as concrete independent organizations whose operations are not purely profit-driven (Phillips, Lawrence & Hardy, 2000) only comes in handy. After all, we are talking here about a public private partnership project in which the Government may be influencing project performance with the adoption of strict governance frameworks (Christensen, 2011; Crawford & Helm, 2009; Klakegg, Williams & Magnussen, 2009; Williams, Klagegg, Magnussen & Glasspool, 2010). In addition to the fact he

may have different objectives to the IOC, the Government as a risk averse entity is expected to have another view and management style when compared to the other project actors. At the end, all of them are trying to cope with the intrinsic complexity of the Olympic Games.

Furthermore, the Olympic Games of Rio de Janeiro showed several signs of corruption, an under-researched topic in the project management literature according to Locatelli, Mariani, Sainati & Greco (2016). Those authors state that megaprojects context have most of the features favouring corruptions as they present a large project size, uniqueness and complexity. Rio 2016 can be put as a case study when taking into consideration the doping scandal, the Pat Hickey arrest and the Tokyo bid. Those were only briefly described in this paper.

Also, the role of politics in Olympics is up until now not studied. Just remember that the largest stage of sport can be seen also seen as a stage of local and international protest. Looking only to the articles from the New York Times, I could figure out five events of public protest: The protest of an Ethiopian runner, the undressing from Mongolian wrestling coaches, the stoning of the torch relay, the win of a female Kenyan marathon athlete after dodging a protester near the finish line and the expulsions of protesters at Rio Olympic venues.

I would also recommend other project management authors to take special attention when doing a documentary analysis of such a megaproject, as information was often misleading or simply not truthful. During Rio 2016, Rrgular press meetings were held with the media in order to inform about the project´s responsibility matrix. The OCOG further expanded their efforts by creating an online news platform, where journalists could access massive amounts of true information related to the project. However the media did not appraise those efforts as it should, ignoring the purpose of those rounds and continuing to address and link issues to the wrong identities. Infrastructure problems were reported as responsibility of the OCOG, but that was an issue of unique accountability to the government. The most prominent example was the problematic release of the Olympic Village, which got under heavy criticism from several delegations claiming that conditions were unsatisfactory. Despite being the responsibility of the government, the OCOG was targeted by the media on that particular issue. In fact, it was the government who acquired the territory with the promise to deliver high standard infrastructure. The OCOG was merely a temporary renting client that suffered the consequences of receiving a building in inadequate terms to satisfy their main stakeholders, the athletes. After the Games, the contract seized and the sales of the apartments become a task of the government. Another

example was the Zika threat that rapidly disappeared as a hot topic as soon as the Games began. Foreign right holders of imagery, who were already present in the city before the event, saw the Zika virus as an opportunity to report negatively on the Olympic Games. Athletes and tourists raised substantial concerns whether or not to attend the event.

The final recommendation and probably the most difficult to follow would consist in the elaboration of a framework in order to make a comparative analysis between the different editions of the Olympic Games. Perfectly aware of the fact that each project environment is unique, some variables in the project could be more comparative than others, such as project team size. As such, not only the Olympic project per se, but also the individual study of each Olympiad should be investigated in literature so that future project managers can could trace conclusions between different project styles across exclusive project environments.

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