

A comparison of project management experiences in the U.S.A, Italy and the U.A.E.

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Abstract

Global prosperity and vigorous economic activity have fostered many ambitious construction projects throughout the world in recent years. The author, an architect, program manager and business consultant, led project teams on several significant projects from 2004 to 2009. All of the projects were exceptionally ambitious and forward thinking with an aggregate value of approximately \$5.5 billion. Although each of the project organizations had many similarities, there was significant variation in the performance of the projects due to the owner's approaches, and the cultural differences of the owners and team members. This paper, through the personal observations of the author, explores the levels of project management maturity in three of the projects in which he was involved by highlighting some of their strengths and weaknesses. Practical recommendations are presented that transcend cultural differences along with a listing of lessons learned during project initiation, planning, execution and control.

Keywords: *Project management, cultural differences, architectural design, construction management*

1. Introduction

From the middle of 2004 until the middle of 2009, the author led, as a senior program/project manager, a series of large international architectural design projects. Three of the projects, one in the U.S.A., one in Italy, and a third in the UAE were each, in their own right, "once in a career" type projects. Even though they were located in quite different cultures; and were performed in different contractual circumstances for dramatically different kinds of clients; they each offered universal learning opportunities. The author learned:

- It is absolutely crucial that large projects be planned very well in an interactive way involving as many of the team and stakeholders as is possible.
- The complexity of large projects increases exponentially.
- Expect and plan for massive changes.
- Cultural differences are important and should be recognized, but they do not impact a large project as much as one might think.
- A project manager's soft skills are as important as his or her technical and managerial skills.

2. Project Descriptions and Background

2.1 U.S.A.-Project Vdara

Project Vdara is a large design and construction project located in a major entertainment venue, Las Vegas,

Nevada, U.S.A. It is part of the CityCentre project which has been described, by the owners, MGMMirage, as the largest privately financed project in the history of the U. S. The CityCentre project, costing \$11 billion, contains approximately 6,000 luxury hotel rooms, 900 condominiums, a 14,000m² casino, 46,000 m² of retail and entertainment space, a 6,900 space parking garage, a \$100 million central power plant, and a 640 meter elevated tram. Project Vdara, a portion of this larger project, consists of a 1,500 room luxury condo-hotel, 57 stories in height, along with a convention facility, spa and restaurants. Also included in Project Vdara are a municipal fire station and an elevated tram station.

The architectural design contracts for the CityCentre project were awarded in several portions entitled, blocks. The first block to be tendered was Block A. The author's employer, Leo A Daly Inc.(LAD), requested him to lead a team to prepare a detailed fee proposal. It was a full time effort involving 15 professionals plus support staff over a period of 6 weeks. Although the proposal was not successful, it was well enough received by the owner of the project for them to place LAD's name on the list for the second portion of the project, Block B (Vdara). The author was once again asked to lead a proposal effort. This time it was successful. Upon award of the project, in early 2005, the author was appointed to the position of project director for LAD.

LAD contracted with MGMMirage to serve as the Architect-of-Record for Vdara. In the USA, the term Architect-of-Record, is the title assumed by the architect who is legally responsible for the design of a project. The Architect-of-Record, working for the client, normally designs the project, aesthetically and technically, produces the tender documents, and issues a package of documents

for construction by a general contractor. During construction the Architect-of-Record reviews the general contractor's work to answer questions and to guard the owner against defects in the construction.

The project design team, led by LAD, was large and complicated, due in part to the nature of the project, but also due to the owner's desire to have only the "best of the best" working on the project. LAD worked closely with the owner to find and hire the best companies in the world to perform specialized design tasks. As a result, at the project's manpower peak, LAD's team had approximately 50 designers along with 25-30 sub-consultant design companies. The sub-consultants assisted with architectural design, and performed all structural, mechanical, electrical, fire protection, security, IT, interior design, furnishings, artwork, and other specialty design services such as restaurants and spas. Although total staff counts on the Vdara project were not tracked, the author estimates that the project design team managed by LAD during the peak work effort amounted to 300-400 design professionals.

In addition to the complexity associated with its size, the Vdara project was further complicated by an aggressive schedule requiring commencement of construction well in advance of the completion of the design, a very tight site requiring substantial coordination with other design teams, and an owner that changed design requirements in response to market conditions. In spite of the difficulties, the project was completed on time in late 2009, achieving its final approved scope. The budget was revised numerous times with the project conforming to the final approved budget. The design team's contract was profitable.

2.2 Italy – Project Varesine

Project Varesine is a large, mixed-use project and part of the Porto Nuovo project in Milano, Italy. Porto Nuovo consists of over 346,000m² of office, residential, cultural and retail space with over 3,800 parking spaces. Varesine contains 42,000m² of office space in one high rise and two mid rise buildings, along with 33,000m² of luxury apartments in 3 high rise residential structures and 4 low rise villas. In addition Varesine contains 7,000m² of retail and 3,000m² of cultural space, all on top of an urban park and 4-level basement housing 2,000 parking spaces and support space. The total size of Varesine is approximately 85,000m² of useable building space.

The architectural design contracts for Varesine were awarded to Jacobs Italia, a subsidiary of Jacobs Engineering, a U.S. firm, by Hines Italia, the Italian subsidiary of Hines, a large US based development company. Jacobs Italia was hired to serve as the Executive Architect. Although this title is different from the role, Architect-of-Record for the Leo A Daly/MGMMirage Vdara project mentioned above, the responsibilities were much the same. That is, Jacobs Italia's responsibility was to perform technical architectural design services as the official project architect and to lead the entire design team during the design process. In this instance, Hines Italia elected to hire all of the major consultants such as structural, mechanical, electrical, security, building codes, etc. while assigning

the management of these consultants to Jacobs Italia, the Executive Architect.

Approximately two thirds of the way through the design process, the project owner expressed extreme dissatisfaction with the project team. The owner contacted the parent company of Jacobs Italia and asked that a new, experienced project director be added to the team. It was at this point that the author was asked to relocate to Milano and assume leadership of the Jacobs Italia team. Upon joining the team, the author found a team confused about their roles and responsibilities, communication breakdowns with the project owner, and a project significantly behind schedule. After 12 months of hard work, the project design was completed, the project tendered and construction commenced. While the original schedule could not be maintained, a revised schedule was negotiated that the owner accepted, the quality of the design work was acceptable and the project was on budget, with the design contract yielding a modest profit.

2.3 U.A.E – The Great Mall of Dubai

The Great Mall of Dubai is a large, mixed used project in Dubai, UAE consisting of 276,000m² of retail space, 149,000m² of entertainment and restaurants, 132,000m² of office space in a single tower, 2 hotels, and 395,000 m² of housing in 12 towers along with 4,600 covered parking spaces. This project, for Nakheel Retail a subsidiary of Dubai World, was designed by the U.S. architectural engineering firm, the author's employer, Carter Burgess, who contracted with Nakheel Retail to provide Schematic Design Services for this project. At the very beginning of the project, Carter Burgess was purchased by Jacobs Engineering converting the project to a Jacobs Engineering project. The designs were produced by teams in three U.S. locations; Boston, Baltimore and Los Angeles with consultants in other cities, along with an associated architectural firm in Dubai. The project, a relatively straightforward planning exercise, was made more difficult by a client that changed staff frequently and revised its proforma during the design process. The project team was able to cope with these dynamics because their initial planning was strong. Unfortunately, complications associated with the Jacobs buyout of Carter Burgess caused the owner to assign the balance of the project after Schematic Design to another design team. The project has since been put on hold.

3. Observations

3.1 General

In general, there is a large gap between theory and practice throughout the world in the architectural design, engineering and construction industry. Although schedule, quality and cost control are well thought out, the project management disciplines of interactive planning, stakeholder analysis, risk analysis and communication planning are underdeveloped.

Project management in the UAE is somewhat more

advanced than in the U.S. or Italy. Perhaps this is due to the large amount of big projects and UAE's willingness to bring in the best international consultants. In the UAE, owners understand project management and are willing to be involved with it early in the project.

U.S. project management is less developed, particularly in the design industry. While there is an intellectual understanding of getting off to a good start, few teams are given time to really plan their work. Detailed risk analysis and communication planning is almost nonexistent. Few firms have standard project management approaches or tools.

Italy is perhaps the furthest behind in developing project management as a discipline. There is a reluctance to plan, share plans, or collaborate in planning.

3.2 Project Initiation

Project Initiation - Vdara

The Vdara project in Las Vegas had extensive project initiation efforts by the design team since the project in its initial stages was not very well defined by the owner. However, one component, the stakeholder's identification and analysis, was inadequately addressed, a fact that was not recognized by the team at the time. This immense and extraordinarily complicated project had at least 75 stakeholder organizations, each with numerous members. The team was itself, a stakeholder on numerous other components of the master project. At the inception of the project at least one full time person should have been working to clarify the stakeholder community and define its needs.

Additionally, because of the massive capital investment, owners of privately owned projects in Las Vegas are under tremendous pressure to complete the projects and start their revenue stream as soon as is humanly possible. This pressure is transferred to the design teams. In this instance, the team settled for a less than optimum project charter. The result was unnecessary confusion during the project's execution.

Project Initiation - Varesine

Upon joining the Italian Varesine project team in Milano, the author saw evidence of strong project initiation and planning activities performed earlier by the team. However, in spite of that fact, there was fundamental misunderstanding between the team and the owner. The Italian team of Jacobs did not understand the extent to which the owner expected them to lead the entire team during the design phases. This led to other team members, and even the owner, taking the leadership role, causing a great deal of confusion and erosion of trust. It is critical on multi-cultural projects that extra effort is extended to assure that all stakeholders in the project understand the project charter in the same way.

Project Initiation - The Great Mall of Dubai

The Great Mall of Dubai project team, like the Las Vegas project team, was under great pressure to get started and get done quickly. The project initiation phase was generally well done and proved a good foundation for

subsequent work. However, one aspect had room for improvement. Although the stakeholder structure was much more modest than the Las Vegas project, it was more vertically segregated than either the Las Vegas or the Milano projects. The upper levels of the stakeholder structure, leading all the way to Sheikh Maktoum, the ruler of Dubai, were totally inaccessible to the project team. As a result, the team had to rely only on information provided by surrogate stakeholders, a condition which caused considerable anxiety during the project execution. While there is nothing more the team could have done to gain access to the upper level stakeholders, the team should have done a better job of separating, in writing, the reported needs of the high level stakeholders with the sources of that information clearly identified.

Project Initiation - Lessons Learned

- Do not underestimate the exponential complexity of stakeholder structures on large projects.
- Assume that buried misunderstandings exist in multi-cultural project charters. Find and clear them up early.
- Do not settle for surrogate stakeholder representation without extensive, carefully worded documentation

3.3 Project Planning

Project Planning - Vdara

Vdara, in Las Vegas was well planned early in the project utilizing rolling planning with downstream phases planned initially at the summary level. The plan consisted of extensive lists of design activities and deliverables (mostly drawings) couple with pre-scheduled project reviews and an open issues list. Detailed schedules and resource and cost plans were prepared indicating staff and financial requirements on a monthly basis throughout the entire multi-year project. Again, the complexity of the project team and the owner's organizational structure was not fully appreciated early in the project. As a result the project plans were not as deeply coordinated with all sub-consultants as they should have been. Even though this was the first time many companies and individuals were working together, there was a tendency to assume that everyone understood how everyone else was working. This caused the team to be confused at times and to experience unnecessary extra effort before interim milestones, when the misunderstandings were discovered.

Project Planning - Varesine

The Varesine project was planned initially with extensive documentation. Unfortunately the plans appeared to be viewed solely as a project management tool with few of the team members privy to the plans. Furthermore, they were viewed as not likely to change. However, the owners changed the scope of the project a number of times, but the team was unwilling or unable to revise the plan. When the author joined the project, the original plan, although initially of high quality, was outdated and useless. The team was in a totally reactive mode.

Project Planning – The Great Mall of Dubai

The Dubai project had good planning from the start with adequate plans shared with all team members. A quantitative and qualitative risk analysis was performed with mitigation strategies identified. Communication planning, however, was weak which caused some problems due to the geographic dispersion with the design team in Boston, and the owner in Dubai.

Project Planning – Lessons Learned

- On large projects hold extra meetings to coordinate and to explain the project plan. Make sure the sub-teams fully integrate into the main projects.
- Never think the project plan is done. It is a work in progress. Respond to all of the owner's changes with a plan revision.
- Always do a formal communications plan as a separate document in the overall project plan

3.4 Project Execution

Project Execution – Vdara

The Vdara project was exceptionally difficult during execution because it was heavily phased; meaning construction was commenced long before the design was completed. At times, the construction team was only one or two floors behind the design team. The owners introduced major changes during the design process. In one instance the scope was changed from 1 condominium building plus two 500 room hotels, to a single 1,500 room hotel. However, throughout this phase, the team performed strongly enough for the owner to transfer additional work to the team from one of the other design teams.

Project Execution – Varesine

The Varesine project in Milano was not phased, so simpler to execute in some respects. The owner was very demanding, however, with many special studies and extra requests during the execution phase. Seeing the disruption to the project team, the author formed a special, separate team, lead by a project manager, to be available for special requests from the owner. This allowed the main team to work relatively undisturbed.

Project Execution – The Great Mall of Dubai

The schematic design phase of the Great Mall of Dubai project was executed smoothly with a normal amount of difficulties associated with working at great distances. Some unpaid, owner initiated, revisions to the design were performed by the team due to misunderstandings caused by the inaccessibility of the top level people and their lack of direct involvement in the project.

Project Execution – Lesson Learned

- Find a way to structure a separate team during times of very heavy workload to address unexpected items. Make sure the sub-team has a project manager so that it can be truly independent.

3.5 Project Controls

Project Controls - Vdara

The Vdara project in Las Vegas, was controlled through regular project reviews, conducted monthly, where the effort and the time required to complete each budgeted task was assessed and compiled. This was done through reviewing a representative sample of the deliverables (drawings). A representative sample was used since the quantity of drawings made it impossible for them to be reviewed monthly. Weekly review meetings were conducted with the team and the owner to address open issues impacting project progress and to offer supplementary information to assist the owner with its decision making. A monthly report was prepared for external consumption highlighting progress, decisions, staffing and upcoming cash flow requirements as well as any new open issues. Internally, the design team prepared a monthly statement for its management projecting staffing requirements, verifying the projected financial outcome of the project and assessing the owner's current level of satisfaction with the design team. Although the team anticipated changes to the project, the magnitude was not foreseen. As a result, change control was understaffed, causing a lag in claims processing for additional design fees. At times, the project team was working ahead of formal authorizations, causing fee revision negotiations to occur after the additional work was already completed. This put the team in a weak negotiating position.

Project Controls - Varesine

Varesine, in Milano, was controlled in much the same way as the Las Vegas project with regular meetings, monthly reviews and monthly reports. After the author joined the team and the project plan was updated, it was used to evaluate the team's progress in a more effective manner than earlier on the project. Unlike the Las Vegas project, the Varesine project benefited from a monthly "cold-eye" review which was a presentation by the team to management. This served to highlight unaddressed issues and bring previously unforeseen risks to the attention of the team.

Project Controls - The Great Mall of Dubai

The Great Mall of Dubai was controlled in the same way as the other projects except that there were fewer regular meetings due to the time and expense of travel. Review meetings were accordingly carefully planned and well orchestrated often lasting two days or more. Changes to the scope were carefully controlled and addressed when they first arose. Owners in the UAE place much more value on the end product and less on the process than do owners in other parts of the globe. Review meetings and phase close out meetings focused heavily on proving to the owner that every drawing anticipated at the beginning of the project was provided, regardless of whether it was ultimately needed or not. Owners in the U.S. particularly, view the list of deliverables as an approximation of what they will get at the end of the design.

Project Controls - Lessons Learned

- Employ extra staff as soon as changes occur to assure

that claim processing does not get delayed

- Utilize “cold-eye reviews” regularly
- If review meetings occur infrequently, organize them with great care.

3.6 Close-out

All of the above projects were closed out efficiently and quickly with documents and files packaged and archived into standard filing systems. Unfortunately, none of the companies have a strong “lessons learned” system, so none of the experiences on the project were captured in a formal way.

4. Cultural Differences

Although the multi-cultural environments of these projects certainly impacted them every day in many ways, their size and complexity caused the projects to generate a culture of their own that dominated the teams. Regardless, there are some fundamental differences between the projects that can be explained by their cultural environments.

The Las Vegas Vdara project was driven by a “can do” attitude fueled by a willingness to take calculated risks--a typical U.S. and in particular, Las Vegas mindset. When a seemingly impossible task was identified, the first statement heard was usually: “How can we do that?”. One almost never heard: “That can’t be done.” Unfortunately, on occasion, this resulted in the project team “just doing it”, when a pause to plan might have been more appropriate. Keeping the U.S. team on target in a controlled manner was a challenge.

In contrast, the Milano project environment was often focused on the impossibility of the task. Italy’s complicated, often conflicting and often changing construction codes and authorities seemed to make the simplest of problems into an unsolvable problems. Keeping meetings focused on decision making required significant effort. However, once aligned to a clear vision with a clear process, the Italian team’s performance was reliable.

In the UAE, the environment is, in a way, a combination of the above two projects. It is similar to the “can do” attitude of the Las Vegas Vdara project except driven by a larger appetite for risk. However, it is also complicated by unwritten rules, changing laws and unexpressed opinions and evaluations. In the UAE, one can experience the excitement of ambitious visions, but at the same time, never be sure that they are real. Clear and specific project charters are indispensable in this environment.

5. Conclusions

Large, complicated international projects are exciting and professionally rewarding endeavors for project managers. They require the best management skills, strong soft skills, and practical knowledge of the fundamentals.

Large projects such as these usually require more than one project manager. One should attempt to *overstaff* the project management role at the beginning of the project.

There will always be more project management tasks than can be imagined at project inception. Time spent at the beginning in planning and organizing pays off 10 to 1 later on.

Cultural differences are important on international projects but should not be overemphasized at the expense project planning and control. Disappointing performances on these projects were, perhaps, amplified in some instances by cultural differences, but were not the root causes.

References

- Wikipedia, *CityCentre*, <http://en.wikipedia.org/wiki/CityCenter> 8. 1. 2010.
- Vdara Hotels and Spa, <http://www.vdara.com/>, 8. 1. 2010.
- Vegas.com, www.vegas.com, 24. 8. 2010.
- Skyscraper City(Varesine), <http://www.skyscrapercity.com/showthread.php?t=546408>, 24. 8. 2010.
- Nakheel, <http://www.nakheel.com/en/developments>, 9.2.2010.
- Jones, M., T., Fleming, P. (2003): *Unpacking Complexity Through Critical Stakeholder Analysis The Case of Globalization Business & Society*, 42, str. 430-454.
- Sharp, H., Finkelstein, A., Galal, G. (1999): *Stakeholder identification in the requirements engineering process*. In: *Proceedings of 10th International Workshop on Database & Expert Systems Applications (DEXA)*, IEEE Computer Society Press, str. 387-391.
- Using Stakeholder Theory to Analyze Telecenter Projects Information Technologies and International Development archive*, 3(3), 2006, str. 61-80.
- Quality and Change Management Model for Large Scale Concurrent Design and Construction Projects*, J. *Constr. Engrg. and Mgmt.*, 2005, 131(8), str. 890-902.
- International Differences in Work-Related Values: Geert Hofstede*, 1980, 1984, Sage Publications Inc.
- Mao-Lin Chiu (2002): *An organizational view of design communication in design collaboration*, *Design Studies*, 23(2), str. 187-210.

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