

# Cost, Program and Quality - Achieving your objectives in office fit-out

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## Office Fit-Out - Competing Approaches

While finding good office space can often be a real challenge in Moscow, fitting out shell-and-core space comes with its own hurdles. New and unknown vendors, a rapidly changing regulatory environment and unusual terminology combine to make the process of managing a fit-out in Russia a demanding business.

The initial setting of objectives is crucial to the successful implementation of a fit-out project. This may seem obvious, but many companies do in fact approach these projects with no, or unrealistic, expectations of the time and cost involved in finishing premises from shell-and-core state.

While budget setting is a *sine qua non* in every other corporate business process, companies who engage in real estate projects rarely, and who have just come through a gruelling site selection and perhaps lease negotiation process, sometimes want to rush into the completion of the space without adequate consideration of some key project parameters. It's the purpose of this article to address what this initial target-setting should take into account and to cover some relevant risk and cost calculations.

One of the first issues involved in the consideration of a future fit-out project, and upon which your chosen project manager will properly give you advice, concerns the design route. There are basically two choices in the local market, given vendor availability and local practices. One can either choose a combined design and build route (D&B), employing one of the avowed D&B vendors on the market to both design the office and to subsequently do all fit-out work, or one can separate the two, employing a dedicated design team, creating a formal design project, and then putting that out to market for General Contractor pricing.

Both of these design routes have their own advantages and disadvantages. The first comment to make is that real D&B companies are actually much thinner on the ground in Moscow than some vendors would actually have you believe. Many vendors boasting D&B capability actually do one of those things well - or even farm out one of the two skill sets to an affiliated or friendly third-party.

Alternatively, tendering separately for architects and/or design engineers can add vital weeks (we typically estimate around 2 weeks) to a construction program - something to bear in mind if you need to vacate your current office quickly without incurring penalty costs.

Which route you take will depend on many things, not least the advice that your chosen project manager provides. If, of the three main project objectives: those of budget, program and quality, you prioritise meeting a tight project program, then a D&B route may be the best suited to your needs.

If cost certainty is an issue - and in the vast majority of projects this is certainly one of the main concerns - then greater assurance in General Contractor pricing is provided when the GC candidates price a finished and developed design, rather than an amorphous design brief and construction at the same time. Let's look at some figures here...

The average General Contractor variation total at the close of D&B projects in Moscow is approaching 40%<sup>1</sup>. In other words, the end cost of D&B projects, when analysed at the close, is in Moscow (for the year 2006) nearly 40% higher than the original quotation provided by the contractor at bid stage. This is not due at all to contractor dishonesty or price gouging, but purely due to the inevitable uncertainty he faces in putting together a price bid for design and construction when the design has not yet been properly developed. There are too many imponderables for him to take into account to provide a more accurate quotation, and the inevitable price hikes are manifest in multiple construction-phase additional claims or variation requests.

Compare this with the 4% average (Moscow, 2006) project-close variation total of construction works conducted and priced on the basis of a developed design. Is that average additional 35% upcharge at the close less important to you than the two weeks extra it would take in a separate design and GC tender process? There is no easy answer and each company will have its own view depending on the most pressing project priorities.

### **A Multitude of Vendors**

The Moscow construction market has changed enormously over the past 5 years. The number of world-class vendors has increased vastly and the service by the best rivals anything that can be delivered in other, more mature, economies. This is a good thing for tenants of course, and for project managers organising commercial tenders.

The influence of the various project managers themselves has grown as well, with construction projects employing professional PMs becoming much more common. Its much rarer these days for the GC to be able to get away with managing himself, or for local tenant Office Managers to be given the job of managing the fit-out project. These are all positive developments.

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<sup>1</sup> This is an average. Some D&B contractors, due to their extended and detailed bidding process can and do end projects with a much lower figure – but alternatively some end with a much higher number.

Your fit-out project could well be one of the most expensive capital investments you make this year. Who manages that investment is key to achieving value for money and avoiding the multiple risks involved.

### Key Cost Trends for Service and Materials

As the Moscow construction market has expanded, that expansion and the demand that prompted it has created real sustained inflation in both materials and labour. Table One covers the price inflation affecting 10 key fit-out related construction materials<sup>2</sup>.

**Table 1 - Materials**

Several Key Fit-out Construction Materials	Unit Measure	Price per Unit Percent Increase in 2007 as Compared to 2006
Raised floor	m2	21.80%
Carpet tiles	m2	54.00%
Cement	50 kg	48.15%
Ceramic tiles	m2	17.42%
Double layers gypsum board partitions with insulation	m2	17.18%
Aluminium framed double glazed partitions	m2	13.38%
Double leaf glass door	pc	20.00%
Suspended ceiling	m2	11.97%
Lights Lighting Technologies	pc	28.09%
Floor boxes	pc	22.07%
<b>Average Increase</b>		<b>25.41%</b>

Table Two covers the associated labour costs involved in the installation of those materials. Once again, here you see the difference in average costs in 2006 and the average costs in the year to date.

**Table 2 - Associated Labour**

General Contractor Fit-out Works Description	Unit Measure	Price per Unit Percent Increase in 2007 as Compared to 2006
Installation of raised floor	m2	10.89%
Installation of carpet tiles	m2	14.61%
Installation of ceramic tiles	m2	19.45%
Installation of double layers gypsum board partitions with insulation	m2	9.76%
Installation of glazed partitions	m2	14.28%
Surface preparation and painting	m2	10.38%
Installation of suspended ceiling Armstrong	m2	15.18%
Installation of lighting fixtures	pc	8.51%
Installation of floor boxes	pc	9.20%
Installation of sockets	pc	21.72%
<b>Average Increase</b>		<b>13.40%</b>

<sup>2</sup> These are material prices for immediate installation in Moscow and the numbers shown are averages based on contractors' bids. This price includes not only the cost of the material but also the cost of delivery to site, relevant duties and contractors margins.

Table Three show the area of the highest price hikes and helps provide us with a key indicator of the motor of the general increase in costs. This table, and the following, Table 4, detail average prices for a selected range of both international and local architects and design engineers operating in Moscow. It is fair to say that a similar trend would be seen in Project Manager pricing<sup>3</sup>.

**Table 3 - Architects**

Architects	Unit Measure	Price per Unit Percent Increase in 2007 as Compared to 2006
Local Architect 1	m2	91.43%
Local Architect 2	m2	50.00%
Local Architect 3	m2	25.71%
International Architect 1	m2	77.78%
<b>Average Increase</b>		<b>61,23%</b>

**Table 4 - Design Engineers**

Design Engineers	Unit Measure	Price per Unit Percent Increase in 2007 as Compared to 2006
International Engineer 1	m2	86.00%
Local Engineer 1	m2	18.75%
Local Engineer 2	m2	12.50%
Local Engineer 3	m2	18.18%
<b>Average Increase</b>		<b>33.86%</b>

While Moscow wage inflation increased across all sectors by an average of 8-10% over the same period, construction labour outpaced that and rose by 13.4%<sup>4</sup>. This, and the material price rises during the same year-on-year period, comprise base fit-out price inflation. Add to this demand-created inflation (in other words, price hikes prompted by the opportunity to charge more given unusual market demand), and weighing the contribution to the total fit-out cost by percent, we get to an average fit-out inflation rate of 26.14%.

Overall fit-out costs per square meter have increased at a faster pace than the average fit-out inflation rate identified here due partially to higher standards of design and more expensive materials chosen by cash-rich local companies and the increased entry into the market of the international financial services sector, who have generally paid much more per square meter than other sectors. While in 2006 this average in Moscow was \$810 per square meter, including IT cabling but not including other IT and

<sup>3</sup> For some of the service providers the rising cost of employing expatriate staff is a factor in their price increases over the period, but as expats in each case comprise a minority of their project-related staff, we do not believe this issue invalidates the identification of the trend.

<sup>4</sup> All averages are those applicable to the Moscow fit-out market and come from an analysis of 200 projects, and 1400 vendor price bids over the period in question.

furniture, this average is now \$990 per square meter. These figures are for Class A office centre fit-outs. Class B fit-outs average approximately \$70-100 per square meter less over the same period.

### **The Importance of the Right Contract**

While the risk of cost overruns in an overheated market like Moscow are real and apparent there are various measures one can take to mitigate risk and ensure that risk is shared amongst the various vendors working on the fit-out project. Having the right contractual framework in place is key to these efforts.

While comprehensive contracts, clearly defining scope of service and timescales and allowing for multiple design iterations, are crucial when dealing with the various architectural and engineering design agencies, General Contracting contracts pose their own unique challenges.

Key negotiating points in GC contract negotiations typically revolve around advance payments (many contractors in the market now have the ability to offer no-advance payment deals), defects liability periods and retention amounts, but liability insurances and bond offers are also more commonly the subject of scrutiny. Moscow general contractors, with a few notable exceptions, still scoff when asked about their Health and Safety policy, but for a large corporation avoiding accidents on site is more than just good corporate practice.

Western standard FIDIC contracts are now becoming much more common in Russia and adapted FIDICs (FIDIC standard contracts adapted by international law firms for use in Russia) are the favoured form for GC appointments. Western forms of appointment such as time-and-materials or open-book arrangements are less favoured in Russia for many reasons - not least the ease with which supplier invoices can be faked. The best alternative is to insist upon a fixed price adapted-FIDIC contract form, putting the contractor on notice that he has the responsibility to find out information about the base building over and above what the project manager normally provides in an invitation to tender. Issues that the GC could reasonably have been expected to be able to discover - but which he didn't - during the bidding process are his responsibility. The client is liable for variation claims only for changing the design as submitted to the GCs during the invitation to tender process and for alterations in the base building status that occurred after the bid (and which usually can be passed on to the landlord involved).

Despite the best laid plans, fit-out plans are always liable to disruption. While not everything can be clearly planned and risk completely ruled out, a good project manager will track all likely risks and have mitigation plans ready when the unexpected occurs. Detailed project plans need to have enough slack factored in to allow disruption to occur while not affecting crucial milestones or the project end-date.

Identifying the most common project risks, and the impact they can have, is vital to understanding how to reduce them, and mitigate their effects should they actually arise. Table Five shows the major risk categories ranked into three tiers.

Without doubt the two most common reasons for problems occurring during a fit-out project concern poor technical definition of guaranteed provision in the lease agreement and extended client design decision-making periods. Rather than appending to the lease a general shell-and-core definition, listing the utility and service levels to be provided for the building as a whole *it is vital* to draw up a technical appendix related to what the tenant is promised for his space. Not defining these levels at lease stage simply stores up problems for the future.

While most of the risks listed below are predictable and the formulation of mitigation plans relatively straightforward, early identification and monitoring of all these general risk categories is crucial if overruns are to be avoided.

Table 5 - Risk Identification						
Tier					Mitigation	NRR
		RC	RL	GRR	Factor	
Tier One	Poor technical definition in site lease	6	5	30	9	21
	Extended client design decision period	5	6	30	7	23
	LL refusal of essential client design criteria after lease is signed	8	3	24	4	20
	Contractor failure	7	4	28	6	22
	Customs delays	8	4	32	5	27
	Utility failures/outages	8	3	24	3	21
Tier Two	Fundamental regulatory changes affect lease, Business model or contractor contracts	7	6	42	3	39
	Serious building failure	9	2	18	2	16
	Regulatory rejections	8	3	24	6	18
Tier Three	Country risks	7	3	21	1	20
	Natural disasters	8	2	16	0	16
	Terrorism/war	9	2	18	0	18

Risk consequences are rated 1-10, 10 having the most severe consequences (i.e. permanently halting the project)

Risk likelihoods are also rated 1-10, 10 being certain.

Mitigation factors are ranked 1-10, 10 being a risk that is easily addressed.

RC & RL are then multiplied by one another to give the total risk rating.

The mitigation factor is then taken off this total to reach the net risk rating

## **What Use is a Project Manager?**

There are many things one can do to maximise the chances of achieving ones objectives in a construction project. One of the major decisions that arises in the very early stages is whether to employ a professional project manager at all. Many simply consign the management of their new fit-out project to an office manager, or administration director. Not having any specialist construction knowledge, they in turn will look around for a contractor they feel they can trust to do all works. In many ways this is a understandable decision - why pay a professional project manager to manage the design and construction of an office when you have existing admin staff who themselves have determined ideas about what the new office should look like?

There are many answers to this, but the most pressing is to look at the sheer scale of the risks involved in pursuing your project. Spending often more than a million US dollars on the fit-out of a building is a significant event in any company's financial year. Risking spending 40% more in mid-project claims amidst the ever-present danger of significant project overrun only adds to the pressure. Basic but essential issues such as local approvals need to be managed in a way that ensure that they are issued with a minimum of delay or disruption. The quality of materials needs to be monitored and a multitude of Acts signed in relation to works done and quality assurance. Confidential closed-bid tenders need to be run, with boilerplate responses analysed and dissected against the reputation of a vendor in the marketplace. Unit prices for labour and materials need to be analysed against Moscow current market prices with excess sums identified and eliminated.

Some corporations, who would employ a professional construction manager in any other country, here, paradoxically where the risk is greatest, try to save a few dollars by handing this task out internally, or to the lowest bidder.

Few contractors like to be overseen by specialists and many will say quite openly that they can manage themselves without oversight. But in what other aspect of your operations do you pay a vendor such sums of money without professional scrutiny about how that money is spent? Whatever risks you take in other areas of your business, few compare with the likely downside of late completion, excessive financial claims and lease penalty clauses or double rent payment.

While managing a fit-out project may seem daunting, especially after consideration of the risks involved, most projects in fact proceed without a significant hitch. Taking a pragmatic and team-focussed approach to your project and getting the best professional assistance can ensure that you move into your new office without too much grey hair.

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