

PROJECT MANAGEMENT: THE ROLE PARADIGM SHIFT

James Sommerville¹ and Colin Campbell²

¹*Department of Building & Surveying, Glasgow Caledonian University, Glasgow, G4 0BA*

²*Project Management International, Edinburgh, Scotland.*

The role paradigm within which the Project Manager (PM) controls and co-ordinates any project centres around the basic time-cost-quality considerations. Additionally, the people orientated aspects of project teams generates a drive for the Project Manager to display a range of interpersonal attributes and skills (competencies) that will ensure their effectiveness and ultimately, project success.

This paper examines the roles/function paradigm demanded of Project Managers within a range of advertised vacant PM positions and relates these to actual performance. The adverts were subjected to Content Analysis and the findings used to drive a Time-Role Analysis Model (TRAM). Practising Project Managers were selected from a wide geographical, project and organisational base, to participate in construct development and real-time analysis of their roles undertaken and those not executed.

The findings show that of the 33 roles offered as possibles, there are clear roles that the Project Manager undertakes and a set which lie outwith the normal working domain. Yet these outlying roles are still being called for in advertised vacancies. There is an anomaly in the paradigm set and this requires further research with both those advertising for, and those practising, Project Management.

Keywords: project manager, competency, roles, project management.

INTRODUCTION

The major challenge facing all construction industry organisations is that of acquiring customers, building relationships with them and identifying ways of being more valuable to them.

The question arises as to how we make our people more customer-focused, and help them to deal with the customer in a way that communicates quality and professionalism i.e. demonstrates competency.

Competence is taken to mean a skill and the standard of performance reached, whilst competency is deemed to refer to the behaviour by which some standard of performance is reached (Boyatzis, 1982; Stewart and Hamlin, 1992; Thompson, *et al.*, 1997). Simply put, competence describes what people do and competency relates to how they do it (Hoffman, 1999). Competence and competency has a significant bearing upon, and is influenced by, organisational behaviour (Stuart and Lindsay, 1997).

The behavioural dimension of construction organisations i.e. how people interact, is of paramount importance when considering long-term PM customer relationships. The state of a relationship will be a significant driver of the customer's perception of the construction service provided and hence its quality (Wileman, 1999).

It is now common, with greater understanding and appreciation of construction supply-chain management, to find the Project Management supplier side working closely with customers; this symbiotic approach to business brings with it a number of challenges for Project Management organisations. It entails maintaining a continual dialogue with customers, asking not merely for comments and reactions, but seeking out the underlying rationale which supports them.

They also have to create a strong sense of belonging among their own people, even though these people may have conflicting loyalties e.g. to a professional body, to a project team, to the employing organisation and to the client (Sommerville and Dalziel, 1998). At the same time, the people may have to put the customer's needs before their own.

Customers expect some basic things as a matter of course, and the construction Project Manager has to provide them simply to be a credible option for customers. These include the ability to provide the basic service or product in a timely and professional manner, with prompt follow-up and servicing, and efficient back-up i.e. discharging a range of roles/functions competently.

THE ROLES/FUNCTIONS OF PROJECT MANAGERS

The Project Manager plays a central role in the co-ordination of team members with the aim of effective and efficient finalisation of the project. Therefore, a number of roles/functions are undertaken by the Project Manager. Culp and Smith, (1992) see the following as encapsulating the tools and techniques of project management itself :

the effective strategic and technical definition of what the project is about, as well as the management of that definition as it unfolds;

the active management of the interplay between the project's definition and the political and financial environments in which it finds itself;

the careful defining of the timing of the project, both in its total duration and in its phasing;

the creation of the right organisational attitudes among all the parties involved in the project's success;

the active development and implementation of the project as it evolves.

Many Project Managers plan their projects by developing: time estimates and network diagrams, work breakdown structures; organise by developing organisation charts and forms, and allocating resources. However, schedules, charts, quality statements and plans, and budgets are not enough; one other important criterion is missing, i.e. the management of people (Kliem and Rudin, 1992).

If we describe the PM as an Action-Centred leader (Adair, 1988), the perception is that the Project Manager should be noted for their leadership skills; the effectiveness of that leadership will depend upon the individual possessing a number of skills. Accepting the view that all managers and leaders should be Action-Centred, then the skills on which they depend are as follows :

ensuring that allotted tasks are completed on time

creating and building a team that can deal with the task ahead

developing the team members by coaching, guidance and training

being quite clear about the task ahead, and making this clear to the team
 understanding and explaining the way the task fits in with company objectives
 planning with the team how the task is best accomplished; determining and then
 obtaining the necessary resources, indeed human resources
 closely monitoring project progress
 appraising the project following upon completion, to learn the lessons.

Kliem and Ludin (1992) argue that the responsibilities of the Project Manager can result in them being required to:

Orchestrate successful delivery of the project

Enable interactive communications among senior management, client and project team

Co-ordinate effective and efficient participation

Develop project plans, including estimates, work breakdown structure, and schedules

Provide mechanisms for monitoring and tracking progress regarding schedule, budget and technical performance

Create an infrastructure for managing the project team.

These views can be considered as outline job descriptions and as such set the basic foundations for the Project Manager's role/function definition and the desired competencies (Morris and Hough, 1993).

Within the construction industry an increasing number of companies, representing a range of professions, have gravitated towards the provision of project management services. All of these companies, and also those from other industries, see typical attributes to be desired and sought after in Project Manager (Baguley, 1995). These attributes are capable of being grouped under thematic headings that focus upon: problem solving processes, processes for dealing with team members, and knowledge of the task.

The breadth and interaction of these thematic areas is shown in Table 1 and indicates that the PM is required to possess skills which cross boundaries and draw upon knowledge and understanding of what may be termed 'softer issues', in order to discharge the fullest range of roles/functions.

Table 1: Role/Function skill areas

Communication Roles:

Ability in Co-ordinating, Achieving Co-operation, Diplomacy, Discretion,

Mentoring Roles:

Influencing, Effective Leadership, Interpersonal Skills, Negotiation Skills

Technical Roles:

Presentation Skills, Customer Relations, Responsibility, Financial Awareness.

The project life-cycle demands flexibility in skill utilisation, since the Project Manager may be dealing with different interaction areas at different points in time. Therefore this roles/functions skills basket may be accessed at various levels contingent upon the situation.

THE INDUSTRIAL CONTEXT – ADVERTISING FOR A GOOD PROJECT MANAGER

Advertisements appearing in national newspapers for the post of Project Manager were trawled over a period of four months. The following list (Table 2) represents the various industries and activities which advertised for PM's during the trawl period and therefore are involved in providing project management services.

Table 2: Advertising organisation types

Typology of Company activities	
Telecommunications	Security and Communications
Network Systems	Management and Computing services
Business solutions in an I.T. environment	Banking I.T. Consultancy
Management Consultancy	IT Management Consultancy
Financial Services I.T. Consultancy	Banks
Industrial Products Manufacturer	Railway Signalling
Integrated Control Systems	Food Manufacturing Group
Social Services – Private	Water companies
National Delivery Service	Fleet Maintenance and Repair
Turnkey project in the nuclear industry	Business Consultancy
A part of the Post Office	Electrical and Mechanical Engineers
Research Establishment	Rail and Underground
Engineering organisational Change agent	Dental Health Services Research Unit
Pharmaceutical company	Process Engineering
Building Services - Electrical and Mechanical	
Building Services Engineering and Contracting	
University Estates and Buildings Department	
Supplier of educational IT products and services to schools and colleges	
Development, manufacture, sale and installation services of communication systems	
Manufacturer of switches for telecommunications and other markets	

A broad range of industrial advertisements were reviewed in order to provide a wide dispersion of the underlying user requirements.

Advertisement Content Analysis

The 52 adverts were subjected to investigation and scrutiny by means of Content Analysis (Krippendorf, 1980). These analyses sought to elicit key linguistic drivers and user defined themes, manifest content being the key approach, with latent content being ignored.

Content Analysis may be considered to contain two general categories of content analysis: conceptual analysis and relational analysis. Conceptual analysis can be thought of as establishing the existence and frequency of concepts in a text. Most often, these concepts are represented by words or phrases. Relational analysis builds on conceptual analysis by examining the relationships among concepts in a text. The advertisements were subjected to conceptual analysis (Carley, 1990). From these analyses key roles/functions and skills elements were extracted which appear to be common to the advertised positions and reflect the driving requirements within the advertising organisations.

Reviewing the Advertisers' Requirements

The Companies employing Project Managers initially require previous experience as a general attribute, and relevant experience within their specific industry or field of activity. In a number of the advertised positions an overall planning and management prowess is stated, but in an unspecified manner. However, further examination of the

companies' advertisements suggests a range of generic attributes that the majority of these companies see as being requisites from their Project Manager. The advertisements also indicate that there are a number of secondary and tertiary attributes that are important drivers when making the final choice of successful applicant.

Reviewing the 52 firms' advertisements, a table of occurrence is constructed based on the frequency each key role/function appears, and also the position of it within the body of the advertisement text. The developed table is shown in Table 3:

Table 3: Spread of Role/Function Areas

GENERIC ROLE/FUNCTION AREAS	
1. Communication/Presentational	7. Influencing/Facilitating
2. Leadership/People management	8= Financial
3. People/Team/Teamworker/Interpersonal/Personnel	8= Innovative
4. Self-Motivated/Motivator	10. Judgmental
5. Planning/Management/Organisational	11. Analytical
6. Flexible/Adaptable	12. Responsiveness

A point of note clearly arises from the roles/functions required to be undertaken and the skills and attributes outlined as requirements by the companies advertising. Review of the Structured and Person Centred approaches considered above suggests that from the initial analyses, the person centred roles/functions assume predominance and therefore, Person Centred Project Managers are required for the advertised PM posts. This is supported by the ranking in Table3, the prominent positions going to those roles/functions which may be perceived as the more indeterminate in terms of their precise specification and quantification.

The ability to control finance, usually seen as a prime driver in other fields, is only eighth equal. This is strange given that many clients may well measure the ultimate success of the project on the final cost to them, even though this is only one of a range of possible metrics.

FIELD SUPPORT FOR THE ANALYSIS

In order to test the validity of the isolated content analysis of the advertisements, and the discernible core competencies, a two-part questionnaire on roles/functions was developed and distributed to practising Project Managers. The two parts focused upon firstly, dealing with general participation in the roles/functions, and a second section that looked at the roles undertaken during live projects.

Table 4: Responses to questionnaires

Grouping	Composite			CNBR excluded %
	Sent	Returns	%	
UK PM's	10	8	80	80
Mid East PM's	10	9	90	90
Other PM's	10	6	60	60
CNBR	870	52	6	omitted
Totals	900	75	8.3	76.7

The Fieldwork

A pilot of the first section questionnaire was executed through practising Project Managers operating in the UK and overseas. Questionnaires were E-mailed and faxed to PM’s in the UK, and in the Middle East, and others operating in English speaking nations, along with an E-mail to the Collaborative Network for Building Researchers. The response rates from each of these populations are shown in Table 4. The questionnaire sought the individual’s input as to their perception of the roles and functions appertaining to their position/the position of Project Manager. Table 5 lists the roles/functions offered to the various respondents. Their opinion as to the whether the roles/functions listed were actually undertaken would either support or refute the inclusion of the roles/functions within the second questionnaire.

Table 5: Project Manager’s Roles and Functions

Achiever	Implementer	Progress Controller
Chairperson	Inspector	Quality Co-ordinator
Communications Facilitator	Marketeer	Resource Allocator
Decision Maker	Mentor	Risk Manager
Diplomat	Monitor/Evaluator	Safety Co-ordinator
Disturbance Handler	Motivator	Social Organiser
Entrepreneur	Organiser	Specialist
Financial Manager	Negotiator	Spokesperson
Group Figurehead	Planner	Teamworker
Human Resource Manager	Presenter	Technical Adviser
Ideas Generator	Trainer	Other

Whilst the response rates from practising project Managers is high, the overall sample response rate is dramatically reduced by inclusion of the CNBR. Due to this shift in the response rates, allowance will be made for the sub-groupings within the data set when statistically processing the data.

The data generated by the responses to this pilot questionnaire supported the contention that the roles/functions were in fact appropriate and so could be included in the development of the fuller, more detailed, second questionnaire, i.e. the Time Role Analysis Model (TRAM).

DEVELOPMENT OF THE TIME ROLE ANALYSIS MODEL (TRAM)

Given that the Project Manager’s daily routine varies, so the research took account of the likely variance in temporal roles/functions of the Project Manager. The questionnaire was structured such that the PM could indicate at 15 minute intervals the role previously undertaken (see appendix 1). The completion of the TRAM allowed the build up of a composite roles/functions picture on both a daily and weekly basis. Within the TRAM the roles/functions have been further grouped into cogent action centres.

The validated first section of the TRAM was issued to 38 PM’s operating within a range of project types and geographical locations. There were 36 responses and these detailed responses are as shown in Table 6. The second section was then issued to 11 willing respondents for their completion of the detailed TRAM document (10 responded).

Table 6: Respondent locations and responses

A 'n' in the box represents that the respondent does not undertake that role/function.
 A blank box represents that the respondent does undertake that role/function.

Sex	Location	SOCIAL										COMMERCIAL							TECHNICAL							SURVIVAL							TRAM Comptd					
		HRM	GF	S	D	M	TR	MO	T	SO	FM	DH	E	RA	RM	CP	QC	SC	PL	PC	I	TA	SP	DM	CF	ME	IG	N	O	IM	P	MK		A	OT	OT		
M	Glasgow	y	y	y	y	n	y	y	y	n	y	n	n	y	y	y	n	n	y	n	y	n	y	y	y	y	y	y	y	y	n	y	n	n	n	n		
M	Edinburgh	n	y	y	y	n	n	y	y	n	y	y	n	y	y	n	y	y	y	n	y	n	y	n	y	y	y	y	y	y	n	y	n	y	n	n		
M	Oxford	n	y	y	n	n	n	n	y	n	n	n	n	y	y	y	y	y	y	y	n	y	n	y	y	y	n	y	n	n	n	n	n	n	n	n		
M	Surrey	n	y	n	n	n	n	n	n	y	n	n	n	n	y	n	n	y	n	n	y	y	n	y	n	n	n	n	n	n	y	n	n	n	n	n		
M	Sheffield	n	y	y	n	n	n	y	y	n	y	y	n	y	y	y	y	y	y	n	n	n	y	n	y	n	y	y	y	n	y	n	n	n	n	n		
M	London	n	n	y	n	n	n	y	y	n	y	n	n	y	y	y	y	y	y	n	y	n	y	n	y	n	y	y	n	y	n	n	n	n	n	n		
M	Glasgow	y	y	y	y	n	n	y	y	y	y	y	n	y	n	y	y	y	y	y	y	n	y	y	y	y	y	y	y	y	y	y	y	y	n	n		
F	Glasgow	n	n	n	y	n	n	n	n	y	n	n	n	n	n	n	n	n	n	n	n	n	n	y	n	n	n	n	n	n	n	n	n	n	n	n	n	
F	Glasgow	n	n	n	y	n	n	y	y	y	n	n	n	n	y	n	y	y	n	n	n	n	n	n	y	y	y	y	y	n	y	n	n	n	n	n	n	YES
M	Malaysia	y	n	y	y	y	y	y	y	y	y	y	y	y	y	y	y	n	y	y	y	y	n	y	y	y	y	y	y	n	y	y	n	n	n	n	n	
M	Glasgow	y	y	y	y	y	n	y	n	y	y	y	y	y	y	n	n	n	n	n	n	n	y	n	n	y	y	y	y	n	y	y	n	n	n	n	n	
M	Saudi Arabia	n	y	y	n	n	y	y	y	n	n	n	n	y	n	y	y	y	n	n	n	n	y	y	y	y	y	y	n	y	n	n	n	n	n	n	n	
M	Oxford	y	y	y	y	n	n	y	y	n	y	y	n	n	y	y	n	n	y	y	y	n	y	y	y	y	y	y	y	n	n	n	n	n	n	n	n	
M	Glasgow	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	n	y	n	n	n	y	y	y	y	y	y	y	y	y	n	n	YES	
F	London	n	n	y	n	n	y	y	y	y	y	n	n	y	n	n	n	n	n	n	n	n	n	y	y	y	y	y	n	y	n	n	n	n	n	n	n	
M	Australia	y	y	y	y	y	n	y	y	y	y	y	n	y	y	y	n	n	y	n	n	n	n	y	y	y	y	y	y	y	y	y	n	n	n	n	n	
M	Melbourne	y	y	y	n	y	y	y	y	n	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	n	n	n	n	n	n	n	n	
M	Wolv/hampt	y	y	y	n	n	n	y	y	n	y	y	n	y	y	n	y	y	y	y	y	y	y	y	y	y	y	y	y	n	n	n	n	n	n	n	n	
M	Singapore	y	y	y	n	n	n	y	y	y	n	y	y	y	n	y	n	n	n	n	n	n	n	n	y	n	n	y	n	n	n	n	n	n	n	n	n	
M	Melbourne	n	y	n	y	n	y	n	y	n	y	y	y	y	y	n	y	y	y	y	y	y	y	y	y	n	y	y	y	y	n	n	n	n	n	n	n	
M	N/A	y	y	y	y	n	y	n	y	n	y	n	y	n	y	y	n	n	n	n	n	n	n	y	n	n	y	y	y	y	n	n	n	n	n	n	n	
M	N/A	y	y	y	n	y	n	y	n	y	n	y	y	y	y	y	y	y	y	y	y	y	y	y	n	y	y	y	y	y	y	y	y	y	y	n	n	
M	Glenrothes	y	y	y	y	y	y	y	y	n	y	y	y	n	y	y	y	n	y	y	n	y	y	y	y	n	y	y	y	n	y	y	y	n	n	n	n	
M	New Zealand	n	n	n	n	y	n	n	y	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	y	n	y	y	n	n	n	n	n	n	n	
M	Glasgow	y	y	y	y	n	y	n	y	n	y	n	y	n	n	n	n	n	n	n	n	n	n	n	n	y	y	n	n	n	n	n	n	n	n	n	n	n
M	Middlesex	y	y	y	y	y	y	y	y	n	y	y	y	y	y	y	n	y	y	y	n	y	y	y	y	y	y	y	y	y	y	y	y	y	n	n	YES	
N/A	N/A	n	y	y	y	y	y	y	y	n	y	n	n	y	n	y	n	n	n	n	n	n	n	y	y	y	y	y	y	n	n	n	n	n	n	n	n	
M	Kent	n	y	y	n	n	n	y	y	n	n	n	n	y	n	y	y	y	y	y	y	y	y	y	y	y	y	y	n	n	n	n	n	n	n	n	YES	
M	Hertfordshire	y	y	y	y	n	y	y	y	y	y	y	y	y	y	y	n	n	y	n	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	YES	
M	Middlesex	y	n	y	n	y	n	y	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
F	Hong Kong	y	y	y	y	n	n	n	n	n	n	n	n	n	y	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	
N/A	Peterboroug	n	y	y	y	y	n	y	n	n	y	n	y	n	n	y	n	y	y	y	y	y	y	y	y	y	y	y	y	y	n	n	n	n	n	n	n	
M	Reading	y	n	y	y	y	n	y	y	y	y	y	n	y	y	y	y	y	y	y	n	y	y	y	y	y	y	y	y	y	y	y	y	n	n	n	YES	
M	Bristol	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	YES	
M	Glasgow	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	n	n	YES		
M	Manchester	y	y	y	y	y	y	y	y	y	n	n	n	y	y	y	n	y	y	y	n	n	n	n	y	y	y	y	y	y	y	y	y	n	n	n	YES	
M	Glasgow	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	n	n	n	YES	
M	London	y	y	y	y	y	y	y	y	y	n	n	y	n	y	n	y	y	y	y	n	y	y	y	y	y	y	y	n	n	n	n	n	n	n	n	YES	
y = yes		23	29	32	26	20	15	33	32	16	31	23	11	27	25	28	21	19	31	30	15	22	11	34	33	27	29	34	35	28	26	14	21	9	2			
n = no		15	9	6	12	18	23	5	6	22	7	15	27	11	13	10	17	19	7	8	23	16	27	4	5	11	9	4	3	10	12	24	17	29	36	10		
	HRM	GF	S	D	M	TR	MO	T	SO	FM	DH	E	RA	RM	CP	QC	SC	PL	PC	I	TA	SP	DM	CF	ME	IG	N	O	IM	P	MK	A	OT	OT	Total			
	Human Resource Manager	Group Figurehead	Spokesperson	Diplomat	Mentor	Trainer	Motivator	Teamworker	Social Organiser	Financial Manager	Disturbance Handler	Entrepreneur	Resource allocator	Risk manager	Chairperson	Quality Co-ordinator	Safety Co-ordinator	Planner	Progress Controller	Inspector	Technical adviser	Specialist	Decision Maker	Communications Facilitator	Monitor/Evaluator	Ideas generator	Negotiator	Organiser	Implementer	Presenter	Marketeer	Achiever	Other	Other				

Findings from the section 1 responses

On initial inspection of the responses it can be seen that certain roles/functions are not undertaken and have low scores whilst others are very highly scored e.g. Marketeer is undertaken by only 13 respondents and Trainer and Inspector by only 14 respondents, whilst Organiser is carried out by 33 respondents, Decision maker by 32, and Communications Facilitator by 31 respondents. When the responses are compared with the advertisement roles/functions we see a disparity arising (Table 7).

The companies sought individuals who are people managers and yet 50% of the PM’s did not undertake this role. Similarly, the advertisers seek individuals who are self-motivated and yet the 44% of the PM’s do not see themselves as achievers. Perhaps the greatest divergence is with the search for flexible/adaptable PM’s i.e. labelled ‘entrepreneur’ within the research, where 72% said this was not a role they undertook.

The other roles/functions (or their comparative functions) considered within the research questionnaire i.e. Marketeer, Implementer, Specialist, Technical Adviser, Inspector, progress Controller, Safety Co-ordinator, Quality Co-ordinator, Chairperson, Risk Manager, Disturbance Handler, Trainer, Diplomat, and Spokesperson, were not directly mentioned in advertisements. For this reason they are therefore not compared even though the number of PM's undertaking these roles/functions shows that they are key components within the overall remit of the PM.

Table 7: Mapping of required roles/functions and actual

Advertisement Role/function	Undertaking (or not)				Research Role/function
	Yes	%	No	%	
Communication	31	86	5	14	Communications Facilitator
Presentational	24	67	12	33	Presenter
People management	18	50	18	50	Mentor
Personnel	23	64	13	36	HRM
Leader	27	75	9	25	Group Figurehead
Teamworker	31	86	5	14	Teamworker
Self-motivated	20	56	16	44	Achiever
Motivator	31	86	5	14	Motivator
Planning	30	83	6	17	Planner
Organisational	33	92	3	8	Organiser
Flexible/Adaptable	10	28	26	72	Entrepreneur
Influencing/Facilitating	32	89	4	11	Negotiator
Financial	29	81	7	19	Financial Manager
Innovative	27	75	9	25	Ideas generator
Judgmental	32	89	4	11	Decision Maker
Analytical	25	69	11	31	Monitor/Evaluator
Responsiveness	26	72	10	28	Resource Allocator

Of the 19 roles/functions mentioned in advertisements we see that a 100% direct mapping from the PM's is not achieved. Some of the PM's carry out some of the roles/functions, but not all of them undertake all of the desired roles/functions.

When the responses are considered under the broad research roles/function headings of Inter-personal, Commercial, Technical, and Survival competencies, we see that just over half (51%) do not participate in the Inter-personal composite band, some 57% do not participate in the Commercial headings, 79% are not active in Technical roles/functions, whilst the bulk i.e. 65% are active in Survival roles/functions.

The 11 completed TRAM composite log sheets have been returned for analysis. Analysis of the completed full TRAM responses is ongoing and will be reported upon in forthcoming papers. These papers will focus upon the temporal shift in the role paradigm during the project life-cycle and any identifiable differential between desired competencies and delivered.

LIMITATIONS OF THE RESEARCH

The language used to describe some of the roles may not have been universally accepted by all of the respondents. The future research will define each of the role titles in some detail.

The respondents were drawn exclusively from within the construction industry; the inclusion of other industry's project managers may well have shown a difference of opinions. The future research will include a range of respondents from other industries.

CONCLUSIONS

Data from the responses to these questionnaires tend to show that in certain areas, some roles/functions which are required by advertising employers, are not subsequently undertaken by Project Manager. In many instances the advertisements do not fully reflect the true range of roles/functions undertaken by practising Project Managers. For example within those functions and roles listed in Table 4, and also required by employers, the following operational variables are perceived differently:

Communicational/Presentational skills are the prime requirement when viewed from the employing organisation's perspective (the 52 advertisers), but practising Project Managers do not perceive Presentations to be a key function.

Motivational skills are placed within the top five by the advertisers, and 86% of the Project Managers see this as a role/function they would undertake. And yet, the PM's do not see themselves as being Achievers (i.e.. self-motivated).

Innovation is ranked 8th. equal by advertisers, but perhaps should be higher given that 75% of the PM's say they undertake this role/function.

The Entrepreneurial function is not highly rated as a role or function by the practising managers (only 28% saying they undertook it).

The research roles/functions not mentioned within the advertisements are undertaken by PM's and should be included in future advertisements in order to more accurately target the PM audience.

There may be underlying peculiarities that exist with regard to the construction industry Project Manager, compared to other industries that utilise these services. Construction and Property industry clients who are involved with project management services are of course numerous, and widely spread throughout many differing industries.

The research has indicated differences which require to be explored more fully with both a longitudinal industry study and also an across industry sectors analysis.

REFERENCES

- Adair, J. (1988) *Effective Leadership*. Pan, London.
- Baguley, P (1995) *Managing Successful Projects*. Pitman Publishing, 1995.
- Boyatzis, R. (1982) *The competent manager – a model for effective performance*. John Wiley, New York.
- Carley, K. (1990) *Content analysis*. In R. E. Asher (Ed.), *The Encyclopaedia of Language and Linguistics*, Pergamon Press, Edinburgh.
- Culp, G. and Smith, A. (1992) *Managing people, including yourself, for Project success*. Van Nostrand Reinhold, 12.
- Galbraith, J. (1973) *Designing Complex Organisations*. Addison Wesley.
- Hoffman, T. (1999) The meanings of competency. *Journal of European Industrial Training*, 23(5): 275-285.
- Kharbanda, O. and Stallworthy, E. (1990) *Project Teams; the Human Factor*. Blackwell, 55.
- Kliem, R.L. and Ludin, I.S., (1992) *The People side of Project Management*. Gower, p.2.

- Krippendorff, K. (1980) *Content analysis: An introduction to its methodology*. Sage Publications, CA.
- Lock, D. (ed) (1987) *Project Management Handbook*, Gower.
- Morris, P.W.G. and Hough, G.H (1993) *The Anatomy of Major Projects - A Study of the reality of Project Management*. John Wiley & Sons.
- Sidwell, A. C. (1982) *A Critical study of Project Team Organisational Forms within the building Process*. Unpublished PhD Thesis, Aston University, 12.
- Sommerville, J and, Dalziel, S. (1998) Project Teambuilding – the applicability of Belbin’s Team-Role Self Perception Inventory. *International Journal of Project Management*, **16**(3): 165-171.
- Stewart, J. and Hamlin, B. (1992) Competence based qualifications: a way forward. *Journal of European Industrial training*, **17**(6): 3-9.
- Stocks, R.K., (1984) *The Building Team, an Organisation of Organisations*. unpublished MSc., Thesis Heriot-Watt University.
- Stuart, R. and Lindsay, P. (1997) Beyond the frame of management competenc(i)es: towards a contextually embedded framework of managerial competence in organisations. *Journal of European Industrial Training*, **21**(1): 26-33.
- Thompson, J. E., Stuart, R. and Lindsay, P. R. (1997) The competence of top team members; a framework for successful performance. *Team performance Management*, **3**(2): 57-75.
- Wileman, A. (1999) What’s a customer Worth. *Management Today*, June, .95.