

Editor's Note: This extract from the GAPPS document explains the use of CIFTER (see the derivation of this name below) to distinguish Complex projects (Senior Project Manager) from non-Complex projects (Project Manager) for *asapm's* certification program.

3. Role Descriptions for Project Managers

The term *project* has been defined in many different ways. For example:

- "A time and cost restrained operation to realise a set of defined deliverables (the scope to fulfil the project's objectives) up to quality standards and requirements." (International Project Management Association)
- "A temporary endeavour undertaken to create a unique product or service." (Project Management Institute, Inc., USA)

Despite the differences in phrasing, these definitions, like most other definitions of project, are conceptually equivalent. Whatever the words used, however, it is clear that a project can be small or large, short or long. A project could be:

- The development of a new power plant from feasibility and design through construction and commissioning
- The preparation of the feasibility study alone
- The construction activities alone
- The creation of a research report for a consumer products company
- The implementation of a new information technology system

In some organisations, project manager is a position with that title, while in others, it is a temporary assignment. Whether a position or an assignment, whenever a single individual is clearly responsible for the management of a project, that individual can be considered to be a *project manager*.

Being responsible for the *management* of the project includes being responsible for the relevant aspects of *leadership* as well. For example, project managers may need to align, motivate, and inspire project team members in addition to doing the more routine activities such as planning and reporting.

3.1 Differentiating Project Manager Roles

Project managers are expected to produce essentially the same results — outputs and outcomes that are acceptable to relevant stakeholders. However, the context in which these results are produced may differ: some projects are inherently harder to manage than others. A project manager who is competent to manage an easier, less complex project may not be competent to manage a harder, more complex project.

GAPPS has developed an approach to categorising projects based on their management complexity: the Crawford-Ishikura Factor Table for Evaluating Roles, or CIFTER. The tool, named after two major contributors to GAPPS, is used to differentiate project manager roles based on the complexity of the projects managed.

The CIFTER factors identify the causes of project management complexity. For example, in some application areas, a project manager's ability to control project costs is considered to be the primary factor in determining competence. The CIFTER provides a mechanism for matching competence to need by identifying the factors that affect the project manager's ability to control costs.

The CIFTER identifies seven factors that affect the management complexity of a project. Each factor is rated from 1 to 4 using a qualitative point scale, and the factors are totalled to produce a management complexity rating for the project. The use of the CIFTER is described in more detail in the remainder of this section.

3.2 The CIFTER Factors

The CIFTER factors are described in the paragraphs below. Each of the factors is given equal weight when evaluating the management complexity of a project.

1. ***Stability of the overall project context.*** The project context includes the project life-cycle, the stakeholders, the degree to which the applicable methods and approaches are known, and the wider socioeconomic environment. When the project context is unstable — phase deliverables are poorly defined, scope changes are frequent and significant, team members are coming and going, applicable laws and regulations are being modified — the project management challenge increases.

Note: some aspects of "technical complexity" such as dealing with unproven concepts would be considered here.

2. ***Number of distinct disciplines, methods, or approaches involved in performing the project.*** Most projects involve more than one management or technical discipline; some projects involve a large number of different disciplines. For example, a project to develop a new drug could include medical researchers, marketing staff, manufacturing experts, lawyers, and others. Since each discipline tends to approach its part of the project in a different way, more disciplines means a project that is relatively more difficult to manage.

Note: some aspects of "technical complexity" such as dealing with a product with many interacting elements would be considered here.

3. ***Magnitude of legal, social, or environmental implications from performing the project.*** This factor addresses the potential external impact of the project. For example, the potential for catastrophic failure means that the implications of constructing a nuclear power plant close to a major urban centre will likely be much greater than those of constructing an identical plant in a remote area. The management complexity of the urban project will be higher due to the need to deal with a larger number of stakeholders and a more diverse stakeholder population.
4. ***Overall expected financial impact (positive or negative) on the project's stakeholders.*** This factor accounts for one aspect of the traditional measure of "size," but does so in relative terms. For example, a project manager in a consumer electronics start-up is subject to more scrutiny than a project manager doing a similarly sized project for a computer manufacturer with operations around the globe.

Note: where the impact on different stakeholders is different, this factor should be rated according to the impact on the primary stakeholders.

- 5. Strategic importance of the project to the organisation or organisations involved.** This factor addresses yet another aspect of “size,” and again deals with it in relative rather than absolute terms. While every project should be aligned with the organisation’s strategic direction, not every project can be of equal importance to the organisation or organisations involved.

Note: as with financial impact, if the strategic importance for different stakeholders is different, this factor should be rated according to the strategic importance for the primary stakeholders.

- 6. Stakeholder cohesion regarding the characteristics of the product of the project.** When all or most stakeholders are in agreement about the characteristics of the product of the project, they tend to be in agreement about the expected outcomes as well. When they are not in agreement, or when the benefits of a product with a particular set of characteristics are unknown or uncertain, the project management challenge is significant.

- 7. Number and variety of interfaces between project and other organisational entities.** In the same way that a large number of different disciplines on a project can create a management challenge, a large number of different organisations can as well.

Note: issues of culture and language would be addressed here.

Crawford-Ishikura Factor Table for Evaluating Roles (CIFTER)

Project Management Complexity Factor	Descriptor and Points			
1. Stability of the overall project or program context	Very high (1)	High (2)	Moderate (3)	Low/VL (4)
2. Number of distinct disciplines, methods, or approaches involved in performing the project/program	Low (1)	Moderate (2)	High (3)	Very high (4)
3. Magnitude of legal, social, or environmental implications from performing the project	Low (1)	Moderate (2)	High (3)	Very high (4)
4. Overall expected financial impact (positive or negative) on the project’s stakeholders	Low (1)	Moderate (2)	High (3)	Very high (4)
5. Strategic importance of the project to the organisation or organisations involved	Very low (1)	Low (2)	Moderate (3)	High/VH (4)
6. Stakeholder cohesion regarding the characteristics of the product of the project	High (1)	Moderate (2)	Low (3)	Very low (4)
7. Number and variety of interfaces between the project and other organisational entities	Very low (1)	Low (2)	Moderate (3)	High/VH (4)

3.3 The CIFTER Ratings

The point ratings for the CIFTER were established in an iterative fashion. An initial set of factors and values were identified, and several projects rated. While the CIFTER development team recognised that most projects could benefit from a higher level of skill, each iteration was assessed as follows:

- Was a project that rated *below* Level 1 *unlikely* to require the skills of a competent Global Level 1 project manager?
- Was a project that rated *at* Level 1 *likely* to require the skills of a competent Global Level 1 project manager?
- Was a project that rated *at* Level 2 *likely* to require the skills of a competent Global Level 2 project manager?
- Was a project that rated *above* Level 2 *likely* to require a higher level of competence than a Global Level 2 project manager?

Both factors and ratings were adjusted until the results met the criteria above. With the final set of seven factors and a point scale of 1 to 4, the following ranges were set:

- Point total less than 11: this project *cannot* be used to provide evidence for a GAPPS compliant performance assessment.
- Point total 12 or higher: this project *can* be used to provide evidence for a GAPPS compliant performance assessment at Global Level 1.
- Point total 19 or higher: this project *can* be used to provide evidence for a GAPPS compliant performance assessment at Global Level 2.

The project being rated should be defined in terms of the responsibilities of the project manager. For example, on a construction project, the owner's project manager and the contractor's project manager will have different responsibilities and thus their projects will have different totals.

In order to illustrate the use of the CIFTER, nine sample projects from three different application areas were selected and rated. As illustrated in the table below, Projects A, D, and G could not be used to provide evidence of competency in a GAPPS compliant assessment. Projects B, C, E, F, H, and I could all be used to provide evidence for a Global Level 1 assessment. Projects C, F, and I could all be used to provide evidence for a Global Level 2 assessment. The paragraphs below contain more detail about the CIFTER sample ratings.

Project Management Complexity Factor								
Sample Project	1. Stability	2. No. of Methods	3. Implications	4. Financial Impact	5. Strategic Importance	6. Stakeholder Cohesion	7. Project Interfaces	Total Score
A	1	1	1	1	1	1	1	7
B	2	2	2	2	3	2	2	15
C	3	2	3	2	4	3	3	20
D	1	1	1	1	1	1	1	7
E	2	2	1	2	2	2	2	13
F	4	2	4	3	3	3	3	22
G	1	1	1	2	2	1	1	9
H	2	1	2	2	2	2	2	13
I	3	3	2	2	3	4	3	20

A. Social/public services project: develop a three-hour employee orientation programme for a municipal department.

Factor	Rating	Discussion
1. Stability	1	Very high – requirements are clear, limited scope, stakeholders unlikely to change
2. Number of methods	1	Low – only one discipline involved
3. Implications	1	Low – might be some legal implications if content violated discrimination laws; no discernable environmental or social impact
4. Financial impact	1	Low – insignificant; no revenue and funds were budgeted
5. Strategic importance	1	Very low – orientation is important but not strategic
6. Stakeholder cohesion	1	High – management and team are in agreement about scope
7. Project interfaces	1	Very low – few interfaces and those are quite similar

B. Social/public services project: develop and implement an in-house training program on a new, computerised point-of-sale system for the automobile driver licensing unit of a state or province.

Factor	Rating	Discussion
1. Stability	2	High – scope is known and well-defined, but the extended project duration due to the need to roll out across multiple sites could create some instability over time
2. Number of methods	2	Moderate – project includes training needs analysis, training program development, training delivery, and technology
3. Implications	2	Moderate – some limited social implications due to public visibility of new system
4. Financial impact	2	Moderate – cost of training program is a small percentage of the overall department budget but a substantial portion of the training department's budget

5. Strategic importance	3	Moderate – new system is key element in improving the unit's sagging reputation
6. Stakeholder cohesion	2	Moderate – as some stakeholders do not want new system
7. Project interfaces	2	Low – fairly large number of interfaces due to number of locations; some variety due to interface with technology supplier

C. Social/public services project: develop and implement a new science curriculum for the final, pre-university year in all schools in a state or province.

Factor	Rating	Discussion
1. Stability	3	Moderate – while many aspects of the project context are quite stable, the sensitivity of the issue and the visibility of the project means that stakeholder identification and management will be challenging
2. Number of methods	2	Moderate – disciplines include curriculum design, subject matter expertise, teacher professional development, marketing, and communications
3. Implications	3	High – environmental implications are low, but social and legal implications are significant
4. Financial impact	2	Moderate – cost is small relative to overall schools budget
5. Strategic importance	4	High – this is the first new curriculum development project in several years; this project must go well or later projects will be severely challenged
6. Stakeholder cohesion	3	Low – resistance to new curriculum is evident among some stakeholders
7. Project interfaces	3	Moderate – numbers and variety are both moderate; project must interface with multiple units of the state or provincial education department, with organisations representing different school providers, and with teachers unions, school boards, parent associations, special interest groups, and others

D. Information Technology project: implement a software package upgrade in a single business functional area.

Factor	Rating	Discussion
1. Stability	1	Very high – requirements are clear, limited scope, stakeholders unlikely to change
2. Number of methods	1	Low – one primary discipline; limited involvement of others
3. Implications	1	Low – no real discernable impact in any area
4. Financial impact	1	Low – cost is small for functional unit; revenue is small for provider; probability of an overrun is slight
5. Strategic importance	1	Very low – operational project with limited strategic impact
6. Stakeholder cohesion	1	High – everyone agrees upgrade is necessary
7. Project interfaces	1	Very low – few interfaces and those are quite similar

E. Information Technology project: design a new corporate website for a multi-national manufacturing company.

Factor	Rating	Discussion
1. Stability	2	High – since this project includes only the design phase, the context should be quite stable; the implementation phase will be a greater management challenge
2. Number of methods	2	Moderate – project requires several kinds of technical knowledge, artistic talent, sensitivity to cultural issues, and an appreciation for the company’s business objectives
3. Implications	1	Low – no real discernable impact in any area
4. Financial impact	1	Low – cost of design project is immaterial from an accounting perspective and most work will be done in-house
5. Strategic importance	2	Low – web presence is important but not strategic for this organisation
6. Stakeholder cohesion	2	Moderate – most stakeholders agree on the need for a redesign, but there are likely to be differences about structure and architecture of the site
7. Project interfaces	2	Low – moderate number of interfaces due to number of countries involved; limited variety since all same company

F. Information Technology project: implement an Enterprise Resource Planning application across business areas in an environment where the success or failure of the implementation has significant legal implications.

Factor	Rating	Discussion
1. Stability	4	Low – length and overall business impact of ERP system will make stakeholder identification and management challenging
2. Number of methods	2	Moderate – several different technical disciplines will be involved from IT and all aspects of the business (marketing, sales, manufacturing, etc.) will be affected as well
3. Implications	4	Very high – environmental and social implications are low, but legal implications related to issues such as privacy and non-discrimination are significant
4. Financial impact	3	High – this is a major investment for the company; careers of key stakeholders will also be affected; the project is material from an accounting perspective for some of the suppliers
5. Strategic importance	3	Moderate – the application is being implemented in order to support several strategic initiatives
6. Stakeholder cohesion	3	Low – while there is widespread agreement on the need for the system and on the core features, there are widespread differences about ancillary features
7. Project interfaces	3	Moderate – numbers are fairly high while the variety is low to moderate; project must interface with multiple departments and multiple locations as well as several vendors

G. Engineering and Construction project: construction management for a small addition to a local school done mostly during summer vacation.

Factor	Rating	Discussion
1. Stability	1	Very high – requirements are clear, limited scope, stakeholders unlikely to change
2. Number of methods	1	Low – relatively simple design; number of trades involved limited
3. Implications	1	Low – no significant impact in any area
4. Financial impact	2	Moderate – significant expenditure for the school district but supported by bond issue; smallish project for the contractor
5. Strategic importance	2	Low – needed to accommodate expected influx of students from nearby residential development
6. Stakeholder cohesion	1	High – district board, school management, and neighbours all supportive
7. Project interfaces	1	Very low – school board and neighbourhood council

H. Engineering and Construction project: construction management of the renovation of a small, suburban office building.

Factor	Rating	Discussion
1. Stability	2	High – building is vacant, so relatively easy to renovate, but need to be careful about disturbance to neighbouring buildings
2. Number of methods	1	Low – only internal renovations, nothing structural; several trades involved but all work is straightforward
3. Implications	2	Moderate – may be some asbestos removal involved
4. Financial impact	2	Moderate – medium size project for both owner and prime contractor
5. Strategic importance	2	Low – owner has many other properties; renovations are staple of contractor’s business
6. Stakeholder cohesion	2	Moderate – owner has reputation for requesting many changes
7. Project interfaces	2	Low – number and variety are both low

I. Engineering and Construction project: construction management of the renovation of a 30 storey hotel for an international hotel chain.

Factor	Rating	Discussion
1. Stability	3	Moderate – project duration is quite long and there is likelihood of turnover among key stakeholders; owner’s co-ordinator has little power to make decisions
2. Number of methods	3	High – relatively complex project involving core disciplines such as engineering, plumbing, and HVAC, as well as specialists in interior design, landscape design, and artwork

		installations
3. Implications	2	Moderate – mostly environmental as the site is relatively large; neighbouring plots may be affected
4. Financial impact	2	Moderate – financial impact on the chain is limited, but this is a major project for the prime contractor
5. Strategic importance	3	Moderate – important first step in the chain’s plans to establish foothold in rapidly developing region
6. Stakeholder cohesion	4	Very low – while basic specifications have been agreed, there are many details to be worked out and many conflicting requirements
7. Project interfaces	3	Moderate – project is fairly large and involves many specialties

3.4 Limitations of the CIFTER

The CIFTER does not accommodate individuals managing multiple projects since ratings for multiple projects cannot be summed. However, an assessment process could allow evidence from more than one project as long as each individual project meets the requirements for the level being assessed.

In some application areas, multiple project managers may share overall responsibility for the project. These projects cannot be used for assessment since it would not be clear which project manager was responsible for which results.

Ratings on individual factors will often vary for the same project. For example, one person might consider the stability of the overall project context to be “high” while another views it as “moderate.” However, experience has shown that such differences balance out and that the project totals are quite consistent.