

Competitive advantage using an organisational project management maturity model: is this achievable?



COPYRIGHT © 2017 BY DAVID FOLEY, DOLDRUM BAY CONSULTING LIMITED

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the author, except in the case of brief quotations embodied in critical reviews and certain other non-commercial uses permitted by copyright law. For permission requests, write to the author, addressed "Attention: Permissions," at the address below.

Doldrum Bay Consulting, Earlscliffe, Ceanchor Road, Baily, Howth, Co. Dublin, Ireland. www.doldrumbayconsulting.com

Use of any trademarks in this report is not intended in any way to infringe on the rights of the trademark holder.

This document is an abridged and updated version of an original thesis by the author submitted as part of the Open University MBA (Technology Management) programme.

Contents

1	Competitive advantage using an organisational project management maturity model: is this achievable?	3
1.1	What is competitive advantage?.....	3
1.2	How to maintain competitive advantage.....	3
2	The nature of the problem	4
2.1	Hypothesis	4
2.2	The position of competitive advantage and strategy in the company	4
2.3	Disagreement over definitions of competitive advantage.....	4
2.4	Recognition of strategic initiatives as projects or programmes	4
2.5	Dispersed, non-dedicated project teams.....	5
2.6	Many different project management maturity models available	5
3	Conclusions, implications and recommendations.....	6
3.1	The position of competitive advantage and strategy in the company	6
3.1.1	<i>Recommendations for the positioning of competitive advantage and strategy ...</i>	<i>6</i>
3.2	Definitions of competitive advantage.....	7
3.2.1	<i>Recommendations for the definition of competitive advantage</i>	<i>7</i>
3.3	Recognition of strategic initiatives as projects or programmes	7
3.3.1	<i>Recommendations for the recognition of strategic initiatives as projects or programmes</i>	<i>7</i>
3.4	Dispersed, non-dedicated project teams.....	7
3.4.1	<i>Recommendations for dispersed, non-dedicated project teams.....</i>	<i>7</i>
3.5	Many different project management maturity models available	8
3.5.1	<i>Recommendations for the different project management maturity models</i>	<i>8</i>
3.6	Critical success factors and influences	8
3.6.1	<i>Recommendations for critical success factors and influences</i>	<i>8</i>
3.7	Is the link between technology management, project management maturity and competitive advantage achievable?.....	8
3.7.1	<i>Recommendations for linking technology management, project management maturity and competitive advantage</i>	<i>9</i>
Appendix A.	References.....	10

1 COMPETITIVE ADVANTAGE USING AN ORGANISATIONAL PROJECT MANAGEMENT MATURITY MODEL: IS THIS ACHIEVABLE?

In an increasingly global economy, many companies are looking for some form of competitive advantage. For some, this advantage is to help them maintain or increase market share, or enable brand loyalty. For others, this advantage helps them to simply survive. In the search for competitive advantage, many companies are looking at the use of technology as a way of improving processes and procedures or simply as a way of enabling better business intelligence.

These technological undertakings are often delivered through projects and programmes, or using project management approaches. Yet, the successful delivery of IT projects has had a chequered history [Standish group, 2015].

1.1 What is competitive advantage?

Competitive advantage is the set of factors or capabilities that allows companies to consistently outperform their rivals whilst enjoying sustained levels of high performance. It is a term made popular by Michael Porter of the Harvard Business School, who said “competitive advantage grows fundamentally out of the value a firm is able to create for its buyers that exceeds the firm’s cost of creating it” [Porter, 1985: 3].

1.2 How to maintain competitive advantage

Most competitive advantages are temporary and replicable. Much effort can go into gaining an advantage, only to have it taken away by a competitor who either comes up with an advantage of their own, or replicates the one you had. To avoid this, there is a constant search for *sustained* competitive advantage [Porter, 1985: 11].

The search for competitive advantage requires companies to analyse both their own operations (looking for ways to improve), and the technological horizon (for new or forthcoming technologies that could give them competitive advantage) [Porter, 1985: 164-171]. They must continuously identify, plan, undertake and deliver initiatives that meet the organisation’s strategic business goals.

In terms of the strategic management of technology, once a company decides upon a technological change that might give them competitive advantage, they then need to plan and deliver that change. These changes are often defined either as a project, or using project management approaches, with the result that the successful delivery of a business strategy is often linked to the successful delivery of these projects.

In general, project management excellence itself cannot occur without some form of strategic planning [Kerzner, 2001: xi]. To achieve this excellence often requires the whole organisation to have reached a certain ‘maturity’ in its processes and approach. With the result that many companies are looking at organisational project management maturity models that will help them identify areas for improvement.

The Project Management Institute (PMI) define organisational project management as the “strategy execution framework utilizing project, program, and portfolio management as well as organizational enabling practices to consistently and predictably deliver organizational strategy producing better performance, better results, and a sustainable competitive advantage.” [Project Management Institute, 2013: 7]. This concept is based on the premise that “Portfolio, program, and project management are aligned with or driven by organizational strategies.” [Project Management Institute, 2013: 7] The project management level that a company performs to is known as its organisational project management maturity.

2 THE NATURE OF THE PROBLEM

2.1 Hypothesis

For many organisations, survival and prosperity are linked to their ability to effectively compete in an increasingly global market. The hypothesis is that by improving their overall maturity in the field of project management (especially around delivering change through technology), companies can positively influence their competitive advantage.

This link between Information technology, project management and competitive advantage has been put forward by several people [Mata, 1995: 487-505, Milosevic, 2000, Kerzner, 2001: 143-149, Jugdev, 2002: 4-5]. Some suggest that technology management is often as equally important as the technology itself [Mata, 1995: 500-501].

The concept of improvement by following a maturity model has also been around for some time. The Capability Maturity Model (CMM) for software has been used by many companies over the last 30 years with considerable evidence of positive effects on business benefits [Herbsleb, 1997].

However, in the real world, there are many problems that make the link between technology management, project management maturity and competitive advantage difficult.

2.2 The position of competitive advantage and strategy in the company

Seeking competitive advantage is a strategic initiative, in the ownership of senior executives of the organisation. Therefore, if this link between technology management, project management maturity and competitive advantage is to have any effect, there must be 'buy-in' from senior executives.

However, it is difficult to 'sell' the importance of project management to senior people. Often, they only see project management as an operational or tactical activity with no links to strategy [Thomas, 2002: 43].

2.3 Disagreement over definitions of competitive advantage

Definitions of competitive advantage often include the concept of value creation. However, there is sometimes disagreement as to:

- what 'value' is (for example, does it simply mean trade gains, or the monetary value of the business to the owners, or the stock market performance)
- when the value is created [Rumelt, 2003].

Competitive advantage can also be derived from several sources. It can come from competencies (such as how a company uses its resources) [Hofer, 1978]. It can also come from luck (being in the right place at the right time) [Barney, 1986: 1231-1241]. If a company is to link technology management, project management maturity and competitive advantage, they also need to be able to define each term.

2.4 Recognition of strategic initiatives as projects or programmes

The definition of a project is "a temporary endeavour undertaken to create a unique product, service or result" [Project Management Institute, 2013: 3-4]. Temporary means that it has a defined start and end, and "unique product, service or result" means that something is created that was not there before. This description covers most if not all the strategic initiatives companies perform to improve their competitive advantage. However, not all strategic initiatives are treated by companies as projects. Many are just seen as tasks or activities that the company must complete. Therefore, if they are not seen as projects, the possible linkage between the use of project management maturity models and competitive advantage may not be recognised.

2.5 Dispersed, non-dedicated project teams

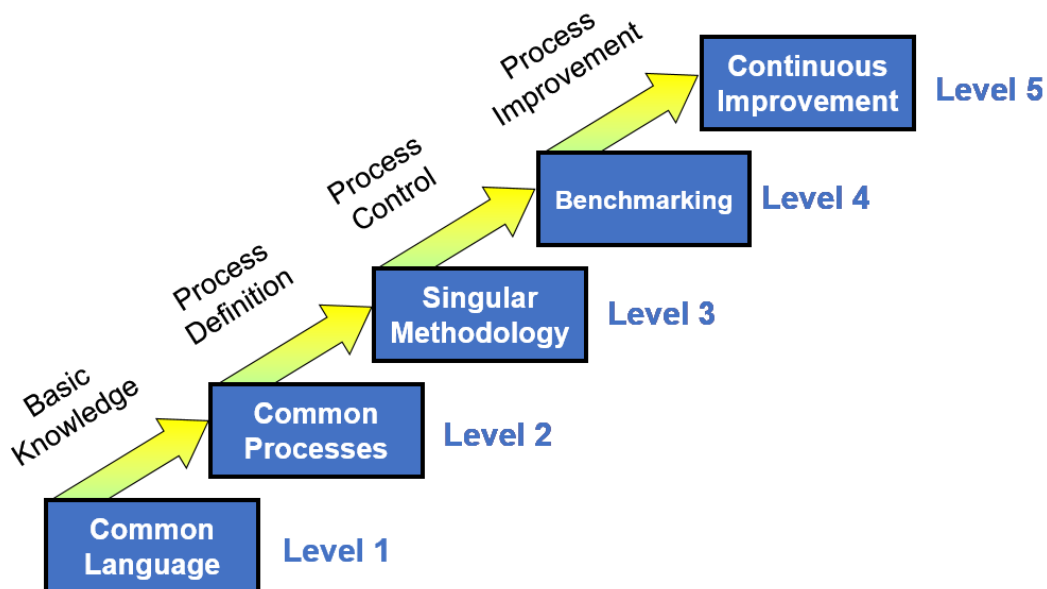
Few projects are run solely with dedicated project team members. Apart from one or two roles (such as project manager or lead architect), project teams are increasingly dispersed around the organisation. The people who provide inputs to projects are often expected to do so in addition to their daily 'business as usual' activities. Often these non-dedicated people are not trained in any project management techniques and, at best, see project management as an enforced discipline or necessary evil, rather than a way of improving the way they do things. When time conflicts arise between performing project tasks and carrying out their normal daily tasks, these people will often give preference to the daily tasks. The question then arises as to how can these 'proxy' project team members can be expected to increase their project management maturity?

2.6 Many different project management maturity models available

There are many project management maturity models available. The majority are based on the Software Engineering Institute's "Capability Maturity Model" (CMM) [Carnegie Mellon Software Engineering Institute, 1993] and provide Software Process Improvement (SPI) practices [Biberoglu, 2002].

The CMM model has been translated into many different Project Management Maturity Models. The one chosen by Doldrum Bay Consulting came from Harold Kerzner who has written several books on the subject [Kerzner, 2001, Kerzner, 2003].

In his book, "Strategic Planning for Project Management Using a Project Management Maturity Model", Kerzner developed a model for measuring the maturity of an organisations project management processes and procedures, along with the ways of improving that maturity [Kerzner, 2001]. The model is shown below.



Harold Kerzner, "Strategic Planning for Project Management Using a Project Management Maturity Model", 2001, John Wiley & Sons

The Kerzner Project Management Maturity model is like the CMM in that both define five levels of maturity, with the theory that the higher the level of maturity, the better the overall project management performance.

The movement between the different levels is not necessarily a sequential process. Some of the levels can overlap. However, each must be completed in the order given. For example, level 1 (common language) and 2 (common processes) can overlap, but level 2 cannot be completed before level 1 is complete [Kerzner, 2001: 43].

3 CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

3.1 The position of competitive advantage and strategy in the company

Competitive advantage is a strategic initiative, yet senior executives often see project management as an operational or tactical activity. Selling project management to senior executives is not easy. In their book on this subject, Thomas, Delisle, and Jugdev highlighted several techniques that makes this selling easier [Thomas, 2002: 61-93]. These included

- **Executive Framing** – fitting the use of project management to the company’s business (for example, high payoffs with lower risks).
- **Alignment** – lining up project management with corporate goals. It is also the alignment of executive expectations and realistic outcomes.
- **Value Statements** - defining the value to the business in terms of measurable results.
- **Managing scope/quality, time and budget** – known as the ‘Iron Triangle’ [Thomas, 2002: 65-66], this includes the use of appropriate tools and techniques

3.1.1 Recommendations for the positioning of competitive advantage and strategy

The result from studies carried out by the author [Foley, 2004] indicated that the structured use of project management techniques and tools can have a positive effect on achieving business success. For example, the amount of time saved by using the tools and techniques outlined, and through the use of a dedicated review team, resulted in a better quality product with a higher probability of success at the end of the process.

In terms of selling this success to senior management, the links between the organisations IT and business projects needs to be established. This can best be achieved using a scope and boundary planning tool such as the Results Chain™ [Thorp, 1998: 48]. This technique allows the mapping of all technical and business scope components showing initiatives (or sub projects), outcomes, contributions (relationships) and any assumptions. The result is a ‘big picture’ of the complete solution.

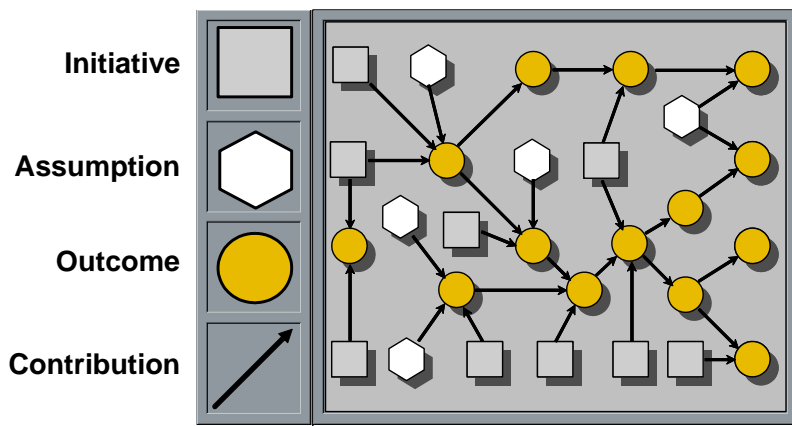


Figure 1 - Elements of the Results Chain™ technique

One of the useful aspects of this technique is that the process of developing the model helps to identify all technical and business components of the solution and often identifies additional unforeseen sub-projects that may have an important bearing on the delivery of the final solution

3.2 Definitions of competitive advantage

Definitions of competitive advantage often include the concept of value creation. However, this is sometimes difficult to define or to know when it is created.

In terms of value, most organisations look at return on investment (ROI) (especially of IT) as being the true measure of value. Unfortunately, IT alone does not deliver value. It delivers a capability that can only be effectively used as part of an overall business change programme [Thorp, 2003].

3.2.1 Recommendations for the definition of competitive advantage

The use of the Results Chain technique is one that lends itself to understanding the value of IT investments by defining not only the IT projects themselves (initiatives), but also the end benefits or values (outcomes). If used as part of a portfolio approach to business and IT investments, the value of the overall change programme and the links to the strategy of the company can be managed.

Before the use of an organisational project management maturity model can be shown to affect competitive advantage, the way that a company measures competitive advantage needs to be defined. This definition needs to follow the SMART acronym (that is, be Specific, Measurable, Achievable, Relevant, and Timely). It is recommended that organisations should include these definitions as part of their corporate goals.

3.3 Recognition of strategic initiatives as projects or programmes

In many companies, not all strategic initiatives are treated as projects. This can result in initiatives that either take longer or are more expensive to deliver than expected, or do not deliver the expected benefits.

3.3.1 Recommendations for the recognition of strategic initiatives as projects or programmes

Once the link between technology management, project management maturity and competitive advantage has been established, it is recommended that all IT and business initiatives are treated as projects or programmes.

3.4 Dispersed, non-dedicated project teams

In many organisations, project managers are a scarce resource. The same can be said for dedicated project teams. Often, the people managing and delivering projects do not have any formal project management training, or even a basic understanding of project principles. This makes the successful delivery of strategic initiatives difficult.

3.4.1 Recommendations for dispersed, non-dedicated project teams

If all strategic initiatives are treated as projects or programmes, then they also require the use of project management techniques. If project management maturity is to affect competitive advantage, all dispersed and non-dedicated project team members should be given some formal education in project management techniques.

3.5 Many different project management maturity models available

Some models (such as OPM3 from the PMI) have been developed as a way of progressing the project management profession. Others, have been developed by organisations who want to sell their own consultancy skills. Many are similar in nature and in use and approach. Choosing the right one for your organisation may be difficult.

3.5.1 Recommendations for the different project management maturity models

Different models can give different results. However, it must be remembered that a model is there to provide a benchmark from which to seek continuous improvement. The right model for your organisation depends upon choosing one that you feel gives the most reliable data. If you are unsure, then I would recommend choosing more than one, especially for the initial level 1 type assessments, and comparing the results. Once a model has been chosen, it is important that it is then consistently used to enable true measurements and future comparisons and to avoid the problems of instrumentation.

3.6 Critical success factors and influences

Identifying the critical success factors and influences that can link technology management, project management maturity and competitive advantage can be difficult. Companies may collect a certain amount of numeric (quantitative) data, such as statistics and maturity measures. However, there are also non-numeric (qualitative) factors, such as market conditions or levels of executive 'buy-in'. The use of triangulation can help provide some validity for the collected data. However, this data usually includes elements that are both objective and subjective.

3.6.1 Recommendations for critical success factors and influences

Project management, as a profession, must deal with both objective and subjective elements; from planning and estimating to the softer issues such as motivation or leadership. Identifying, prioritising and managing these elements requires experience, a structured approach and mature organisational project management model.

It is recommended that, as part of project management maturity, organisations treat project management as a profession, with specific career paths and progressions identified. It is also recommended that a recognised project management approach such as that proposed by the PMI should be adopted, and the organisation's project managers should be encouraged to attain certification in such approaches.

3.7 Is the link between technology management, project management maturity and competitive advantage achievable?

The latest Standish group survey shows that many IT projects are still 'challenged' (that is, late, over budget or cancelled) [Standish, 2015]. If organisations are to turn some of those challenges into successes, they need to know whether the use of project management maturity models can help achieve this, no matter what industry they are in.

In the experience of Doldrum Bay Consulting, the application of project management techniques for technology projects does have a positive effect on the identified measure of competitive advantage. However, it is not always scientifically possible to prove that use of such techniques is the only factor that influenced the results.

For instance, there is a possibility that the results could be because of the Hawthorne effect [Landsberger, 1958], whereby highlighting and bringing a focus on projects can positively change the behaviour of those managing those projects, no matter what model or approach is proposed.

3.7.1 Recommendations for linking technology management, project management maturity and competitive advantage

Proving that there is a single direct link between technology management, project management maturity and competitive advantage can be difficult as there are often many other factors that could also influence the outcome.

However, the experience of Doldrum Bay Consulting is that the very act of treating all strategic initiatives as projects, and following a project management maturity model approach does result in positive results, even if determining causality is complex and not easy to prove

Therefore, the recommendation is that the use of such models is of value to organisations as the potential benefits outweigh the uncertainty as to the true source of those benefits.

Appendix A. References

- Barney, J. (1986), "*Strategic factor markets: Expectations, luck and business strategy*", Management Science, vol. 32
- Biberoglu, E., & Haddad, H. (2002), "*A survey of industrial experiences with CMM and the teaching of CMM practices*", Consortium for Computing Sciences in Colleges Southeastern Conference
- Carnegie Mellon Software Engineering Institute (1993): Capability maturity model for software. Carnegie Mellon University. Retrieved 27 May 2017, from <https://www.sei.cmu.edu/reports/93tr024.pdf>
- Foley, D. (2004), "Competitive advantage through the use of an organisational project management maturity model: is this achievable?", MBA (Technology Management) programme, thesis as part of T842 module
- Herbsleb, J., Zubrow, D., Goldenson, D., Hayes, W., Paulk, M. (1997), "*Software Quality and the Capability Maturity Model*", Communications of the ACM, June 1997, Vol. 40 No. 6
- Hofer, C., & Schendel, D. (1978), "*Strategy formulation: Analytic concepts*", West Publishing Company, St. Paul, Minnesota
- Jugdev, K., & Thomas, J. (2002), "*Project Management Maturity Models: The Silver Bullet of Competitive Advantage?*", Project Management Journal, 2002, Vol. 33, Number 4
- Landsberger, H. (1958), "*Hawthorne Revisited*"
- Kerzner (2001), "*Strategic Planning for Project Management Using a Project Management Maturity Model*", John Wiley & Sons
- Kerzner (2003), "*Project management: a systems approach to planning, scheduling, and controlling*", John Wiley & Sons
- Mata, F., Fuerst, W., Barney, J. (1995), "*Information Technology and Sustained Competitive Advantage: A Resource-Based Analysis*", MIS Quarterly, December 1995
- Porter, M. (1985), "*Competitive Advantage – Creating and Sustaining Superior Performance*", The Free Press
- Project management Institute (PMI) (2013), "*A Guide to the Project Management Body of Knowledge (PMBOK® Guide) - 5th Edition*", Project Management Institute
- Rumelt, R., Kunin, H. & E. (2003), "*What in the World is Competitive Advantage?*", Policy Working Paper 2003-105, The Anderson School at UCLA, August 5, 2003
- Standish Group (2015), The CHAOS Report (2015), accessed May 26, 2017, <http://blog.standishgroup.com/post/50>
- Thomas, J., Delisle, C., Jugdev, K. (2002), "*Selling Project Management to Senior Executives: Framing the moves that matter*", Project Management Institute
- Thorp, J. (1998), "*The Information Paradox*", McGraw Hill
- Thorp, J. (2003), "*The Challenge of Value -- Portfolio Management and the Myth of ROI*", Consultants' Briefing, CIO.com, retrieved 12th March 2004 from <http://www2.cio.com/consultant/report1353.html>