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VALUE ENGINEERING AND THEORIES OF THE FIRM

BIOGRAPHY

Roy Woodhead

BSc Hons, PhD (Leeds), CVS, TVM & PVM



Dr. Woodhead teaches New Product Development, Innovation Management, and Technology Management at Oxford Brookes University in the UK. He has been involved with VE and VM for many years as a researcher and practitioner. He has numerous publications that include books, international journal and conference papers and regularly consults with industry.

Tel: ++44 1865 483711

Email: rwoodhead@brookes.ac.uk

Andrew Garnett

BSc Hons, MSc (Leeds), MBA (Bath)



Mr Garnett is the managing director of PTC Consulting based in the UK. He is a manager / practitioner who has worked globally for Shell International for 12 years and has created and led renowned, *global* performance improvement programs.

Tel: ++44 778 656 7885

Email: agarnett.ptc@virgin.net

Abstract

The purpose of this paper is to start a discussion which explores Value Engineering with respect to a number of different business models that explain what a firm is and what it seeks to achieve. At its heart is a desire to stimulate discussions about what the word “Value” might mean to senior managers and how we can help to communicate ways that help them achieve it. It does this by exploring a number of theories of the firm and discusses the implication for VE as it is today and how it might develop in the future.

An underlying assumption of Value Engineering is that its usage increases value to the firm via innovation in projects, products, services and shared insights. This paper will explore this view and expose other assumptions which we as a community of practitioners could use to communicate better with senior management.

Keywords: Value Engineering, Value Management, Theory of Firm, Senior Management.

1. Introduction

The purpose of this paper is to be provocative. We hear many Value Engineering (VE) and Value Management (VM) professionals lament clients and senior managers don’t understand the value of VE as if the communication problem rests outside our own community and we are helpless.

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However that view gets us nowhere. So this paper is trying to look from senior management perspectives and become more creative in the way we discuss what the word 'value' might mean to a client.

The paper does so by explaining there are numerous theories of how a firm creates value. For VE to become more prominent in the mind of senior managers we have to be able to discuss how VE fits with the dominant theories in the client organisation we engage with. That is, which theories of the firm best describe the organisation we are looking at and how could VE add value to them.

Theories are used to explain observed data and phenomena in relation to axioms or sets of rules and their assumptions. Positive analysis is the use of a theory to predict the impact of a certain choice. Normative analysis uses theory to consider what 'ought' to be the case. VE could be seen to offer both forms of theory that predict different outcomes (i.e. rewards) and their likelihood (i.e. probability and risk). However, this capability is not in central in common practice and so there is an opportunity for this community.

When talking of theories of the firm Freiling (2004) poses the following questions:

- Why do firms exist?
- How do firms emerge and change over time?
- Why do firms collapse and what are the driving forces?
- What are the drivers explaining the run of the boundaries of the firm?
- How is it possible to explain the internal organization of companies which are made up of more than one person?

From a senior management perspective, any methodology such as VE/VM or other methods (e.g. Lean and Six Sigma) that claim to deliver value should be able to explain how they will provide a positive contribution to at least one of the above questions, if not them all. The paper's intention is thus to offer a different way of thinking about VE and VM in the hope it will lead to further enquiry into senior management perspectives.

2. Theories of the firm

Theories of the firm are about how we can understand what they are and why they are. This paper's purpose is to commence an enquiry within the field of VE and VM into how we can add more value given different theories of the firm exist.

The literature has been arbitrarily divided into two categories we have named "Targeted" and "Encompassing" theories of the firm. For the "Targeted" approaches the common assumption is that the firm exists for a single reason such as to 'maximise profits'. Here a narrowly focused view of VE that increases profitability either through revenue growth or cost reduction would fit with firms holding a similarly targeted modus operandi. For the Encompassing theories we see a wider set of assumptions that basically add other purposes to a singular view such as 'profit maximisation'. For this broader view of the firm, VE with a narrow focus would be inadequate in terms of meeting the expectations of senior managers with 'wider' expectations of what is valuable to their firm. Value Management, with claims of broader views of value could be used to augment a purely targeted

view such as “*it’s only profit that counts as value*”. We will now explore different theories of the firm and then discuss the implications for VE and VM practice.

3. Targeted Theories

3.1. Profit Maximisation: As the title suggests this theory sees the firm as a mindless and soul less profit making machine. It’s characterised by a view of the firm existing to acquire and utilise resources in a production logic that converts labour and capital into goods and services. A key assumption is that the decision makers have access to perfect information and so fails to fully appreciate the different risks of alternative investment opportunities (Coase, 1937; Simon, 1955; Cyert and March, 1963)

3.2. Market Value: This theory sees the firm as considering the risks associated with various investments and making risk-reward decisions in order to maximise the current market value of the firm’s share, or stock, value. A key weakness of this theory is it fails to accommodate the cost of managers (Fama and Miller, 1972; Seth and Thomas, 1994)

3.3. Agency Cost: This theory is a variation of the Market Value Theory except it places a key emphasis on the fact shareholders appoint managers as their agents (Jensen and Meckling, 1976). As such, managers make decisions in the best interest of shareholders. This theory attempts to overcome the failure to acknowledge management costs and recognises the separation of ‘*ownership and management*’ brings with it problems of motivation and commitment. Often shareholders will decide the remuneration of management in an attempt to align self interests to increase motivation and commitment believing this is key to success.

4. Encompassing Theories

4.1. Behavioural: This theory seeks to explain the behaviours, based on observations that some organisations don’t want to maximise profit, but rather seek a satisfactory profit (Cyert and March, 1963). Especially in large organisations, it sees different coalitions or different parts of the firm trying to solve different problems at different times. The way things get done is often a product of stakeholder conflict and bargaining.

4.2. Resource Dependency: The theory here is about the luck and skills in getting and using resources to achieve above average earnings. The firm exists to achieve great results and this is only possible through the use of resources. Here internal stakeholders and external coalitions (e.g. shareholders, suppliers and creditors) impose constraints that dictate the firm’s objectives. Strategy is thus a reaction or response to dictates from external agents. The main objective of the firm is to survive by maintaining support and obtaining resources from the external coalitions (Penrose, 1959; Pfeffer and Salancik, 1978).

4.3. Resource Rents: This theory seeks out the best fit between a selected strategy, the resources available and opportunities in the environment (Penrose, 1959; Rumelt, 1984). Strategy is formed within the firm in a more autonomous way than exists in the Resource Dependency model. It uses a notion of ‘Rents’ to make judgements. A ‘rent’ is the return that is over and above an alternative cost use. Rents are achieved by using core competencies and scarce resources better than rivals.

4.4. Comparative Institution: The firm gets rents based on Return on Assets and management skills in coordinating interactions with other resource owners (Hennart, 1994). The firm seeks a strategic advantage by reducing its costs by organising its internal and external transactions cheaper than rivals.

At the heart of this theory is ‘cooperation’ that requires the following tasks:

1. Ensure the benefits of cooperation are understood
2. Restrict the ability of any players to increase their share of benefits
3. Make sure everyone sticks to the agreed terms

4.5. Competence Based: It is knowledge based transactions costs that enable the firm to exist. Here know-how, rather than self interest, accounts for differences in the performance of firms in similar markets. This theory sees the ability to learn as a distinguishing feature that separates it from different forms of resource theories (Hamel & Prahalad, 1994; Teece, Pisano, and Shuen, 1997; Connor and Prahalad, 1996)

4.6. Resource learning: It is the capacity of resources to learn and improve that enable firms to exist and survive. The ability to manage the pace at which a firm can learn and adapt is the key to sustainable competitive advantage (Mahoney, 1995)

4.7. Constituency Based: Each internal management function (e.g. sales and marketing) provide a unique specialism that is itself a key resource for the firm (Anderson, 1982). The firm negotiates the different goals with the specialisms to enable a strategic direction to be pursued.

This theory has to deal with the almost tribal nature of the factions within a firm as individuals and departments pursue different objectives. It is also possible to see ‘game theory’ at work within such models (Aoki, 1984). The ‘actual’ objectives end up as the product of internal negotiations and sometimes dominated by internal stakeholders that have more influence due to ownership of a critical resource.

4.8. Stakeholder: This is an extension to the introverted view of constituency based theory which views groups and factions as steering the firm. Here the firm develops objectives through a negotiation process with external stakeholders (Donaldson & Preston, 1995). It is assumed internal factions will be willing accomplices to agreements made by the firm’s senior managers.

The key difference between this theory and the Resource Dependency theory turns on the way power is used to impact options before the firm. In the Resource Dependency model the firm is on the weaker end of an asymmetrical power relationship; the firm does what it’s told to. With Stakeholder theory the power relationship is assumed to be more equal and so rather than being dictated to, the firm enters negotiations with external stakeholders.

4.9. Contingency: This theory looks at what is a feasible model and has been proven to work elsewhere and then adapts it to fit the particular internal and external environments (Hofer, 1975; Ginsberg & Venkatraman, 1985). What is important to recognise with this theory is that it flies in the face of the ‘Targeted’ theories often termed “Classical” or “One right way”. If we ask, “Why should the way a successful automobile business is run be a viable model for the way to run a hospital?” and then consider the claims of methodologies such as Lean Thinking, we realise the

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transferability of methodologies requires either a dogmatic insistence ‘one size fits all’ or an understanding of the underpinning principles and an ability to tailor an ‘off the shelf’ methodology to fit. This latter approach is really what Contingency Theory is about. It’s the ability to tweak a generalised model to fit a specific set of circumstances.

4.10. Life Cycle: This theory sees firms at different stages of an evolutionary process. As such it looks for successful firms at a comparative stage of development. Life cycle stages are based around notions such as 1) start-up/pioneer 2) Market Development 3) Diversification 4) Acquisition 5) Cooperation (e.g. joint ventures around new technology) 6) Restructuring.

4.11. Network: Previous theories of the firm locate models as being developed within the firm. Management make strategy inside the boardroom so to speak. Network theory sees the firm as co-evolving with other firms and so the theory of the firm ‘emerges’; this theory is also part of what the literature calls ‘complexity theory’. At its core is a theory of communications and alliances based around a view that the environment is not a given but something that can be shaped. A key feature of this theory is it does not accept long term planning goals have credibility. As such they have to be recognised rather than aimed for (Williamson, 1975; Jarrillo, 1993).

4.12. Living: De Gues (1997) puts forward the view that it is the aim of long term survival that creates most value to society. He puts forward a metaphor of the firm as a living entity and argues only a few large firms manage to survive beyond sixty years. This theory marks the early stages of a new body of doctrines based around the need to harmonise capitalism with other systems and in particular with the natural world. This theory sees the value producing capability, to employees, customers and other stakeholders, as part of a driving force for both a successful firm and a successful society.

5. Conclusion

If we describe practice in terms of a sequenced set of phases then we may fail to align our explanations with the expectations of senior managers. To describe VE or VM in terms of the Job Plan and what is expected within each stage of the job plan works well for a ‘how to’ description and suits those managers looking to buy ‘how to’ products and services. However, senior managers set the ‘what to’ challenges and delegate ‘how to’ problems to lower management tiers. As such, it is not surprising to find VE and VM are popular with middle managers and project managers for these are people charged with delivering articulated results and so need ‘how to’ solutions.

If we want VE and VM to have influence in the board rooms of firms then we have to describe the product or results of VE and VM rather than the methods. Senior managers are a different audience to middle and project managers. We need to communicate different messages to them (e.g. Kaufman and Woodhead, 2006). We have to explain how the results of VE and VM can help senior managers exercise intelligent stewardship and to satisfy, if not exceed, key stakeholder expectations; we have to be able to deliver on such claims also!

Today’s view of the Job Plan is not enough for the challenges facing senior management. Do we really believe five or six days in a workshop are all that a firm needs to become world class and compete with the 40% cost advantage China has? The pursuit of organisational value requires much more than we currently offer; but it is not beyond our grasp. If we are willing to develop much more

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structured approaches to enquiry, analysis and diagnosis of the issues, problems and opportunities facing firms, then we recapture the pioneering spirit of the founding fathers of VA (e.g. Miles, Fallon, and Bytheway). That is, we become a community of researcher-practitioners looking for ways to improve the fortunes of the firms that hire us.

The VE and VM communities must place a focus on the articulation and achievement of results that senior managers needs and understand which theories of the firm dominate and draft relevant communication plans.

In closing, we are as a community what we became because of previous decisions and ways of operating. Why would anyone expect any other possibility for VE and VM to follow from doing things the same way we've done for the last fifty years? The time has come to rethink VE and VM at a profound level. The time has come to make VE and VM more relevant to the board rooms of major organisations.

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