

Transformational leadership: a response to limitations in conventional information systems evaluation

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Abstract: The principles of information technology evaluation typically presume a transactional leadership style. This paper begins with the assumption that evaluation can be used in ways other than as the exercise of transactional leadership. It uses data drawn from a study of the expertise of UK Financial Directors to suggest some of the implications of transformational leadership for the exercise of evaluation. The paper argues that evaluation as framed by transactional leadership is given responsibility for decisions regarding information systems evaluation whilst for transformational leaders evaluation can become the means by which individuals are enabled to take responsibility for their actions.

Keywords: Evaluation, Transactional Leadership, Transformational Leadership, Intellectual Stimulation.

1. Introduction

The current concept of evaluation of information technology makes certain assumptions. These centre in broad terms on the ability of evaluation systems to represent initiatives in ways that allow efficacious judgements to be taken. As a consequence of this assumption, representational faithfulness is assumed to be a primary requirement. Given representational faithfulness, it is assumed, rational decisions can be taken, and evaluation can be used to foster learning within feedback cycles. This assumption is consistent with a particular kind of leadership, which has been termed “transactional”. Transactional leadership is based on the premise that leaders clarify the goals of subordinates, and provide rewards and punishments concomitant with performance against goals. Transactional leadership clearly has an important role to play within the modern enterprise but there is an alternative: “transformational” leadership (Burns, 1978). Transformational leadership begins with assumptions which differ markedly from transactional leadership, and thereby implies a different approach to evaluation. In broad terms, these assumptions centre on achieving results by stimulating subordinates; rather than through systems of contingent reward. The central question to be pursued in this paper concerns the relevance and implications of transactional and transformational leadership for the practice of information technology evaluation.

The next section considers transactional leadership and explains its relationship to evaluation. Limitations of evaluation based upon evaluation and transactional leadership are explored both through the existing literature and through an existing study of the views of a group of Financial Directors of UK

FTSE top-500 companies (all quotations used within this paper are taken from McAulay et al, 1997). Transformational leadership is then presented and comments made by the Financial Directors are used to suggest ways in which evaluation can be aligned with this form of leadership. The implicit argument is that familiar problems that are associated with the exercise of evaluation as framed by transactional leadership can be avoided within transformational leadership. The implication of the paper is that the exercise of evaluation should not be understood as an ontological inevitability but as a consequence of context, including the context provided by leadership.

2. Transactional leadership

The leader’s role within the transactional view of leadership is one of clarification; leaders clarify the role of subordinates and motivate them through rewards for good performance and punishments for aberrant behaviour. Transactional leadership stresses contract and contingent reinforcement (Bass, 1985). It is underpinned by path-goal theory, which establishes a role for the leader as the person who points out to subordinates the “paths to successful effort” (Bass, 1985, pg. 127). Leadership effectiveness is experienced in terms of the expectancy theory of motivation and cost-benefit considerations (Bass, 1985, pg. 5); motivation is attributed to subordinates’ expectations that they will be able to improve performance and receive concomitant rewards. Bass (1985, pg. 123) expresses the basic tenets of transactional leadership in terms of Blanchard and Johnson’s (1982) tenets of “one minute management”:

- “Set goals with subordinates.
- Clarify what performance is needed to reach the goals.

- Tell inexperienced subordinates what they did right, how you feel about it, and encourage more of the same.
- Tell experienced subordinates, when necessary, what they specifically are doing wrong and how you feel about ..."

Transactional leadership and currently dominant evaluation principles are potentially mutually reinforcing. In principle, transactional leaders influence others through goal setting, by clarifying desired outcomes and by providing feedback (Dvir et al, 2002). Summative evaluation is likewise capable of influencing action through the provision of goals and the clarification of desired outcomes, by enhancing understanding of cause-effect relationships, and through feedback which incorporates ex ante evaluation or post implementation audit (Farbey et al, 1999). In practice, alignment between leadership and evaluation may be important for both performance and the well being of subordinates. Consistent with the principles of transactional leadership, leaders communicate expectations to subordinates and thus convey information about the roles that individuals must fulfil (Katz and Kahn, 1978). Evaluation which is based upon accounting information likewise communicates role expectations (Hartmann, 2000, pg. 467).

The non-alignment of communicative acts associated with leaders and evaluation systems provides a source of role conflict and role ambiguity, which would not otherwise be evident. For instance, where the leader and the accounting information system convey the message that the selection of, say, project A is in the best interests of the company, there is no conflict or ambiguity for a subordinate who is entrusted with managing project A. However, where a leader argues in favour of project B on strategic grounds, whilst the accounting information system indicates that project A is the optimal choice on grounds of rational choice, conflict and ambiguity are apparent. Role conflict and role ambiguity have consistently been shown to have a negative impact on performance, commitment, involvement, tension, anxiety and propensity to leave the firm (King and King, 1990).

Transactional leadership therefore has important advantages, especially if leadership and evaluation-as-rational-choice are to be aligned. However, evaluation-as-rational-choice has consistently been shown to be problematic. In particular, it depends upon the omniscience of the leader and the ability of the leader to specify expectations in unambiguous

and non-conflictual terms. Transactional leadership depends upon diagnosis and information. It relies upon management by exception and negative feedback (Bass, 1985, pp. 135-149). Transactional leadership is therefore "logically compelling as long as we can posit that man is a rational and economic being" (Bass, 1985, pg. 6). It is therefore important that we consider the implications of evaluation as rational choice if we are to understand the consequences of applying evaluation from a transactional leadership perspective.

3. Evaluation as rational choice

March (1997, pp. 10-11) summarises the assumptions of rational choice under four headings:

- A knowledge of alternatives. This assumes that alternatives can be defined as the basis for systematic analysis.
- A knowledge of consequences. This assumes that systematic analysis can address the consequences of each of the alternatives.
- A consistent preference ordering. This assumes that consequences can be valued in a consistent manner.
- A decision rule. This assumes that a rule can be applied which can determine which of the alternatives is the most highly valued.

These four assumptions characterise the literature on information technology evaluation, but these assumptions can be problematised when the views of practising experts are considered. In the following sections, each aspect of rational choice is viewed in turn by considering briefly writings in information technology evaluation and responses from Financial Directors involved in the study by McAulay et al (1997).

3.1 A knowledge of alternatives

Projects have different aims and levels of risk. Projects can be classified, for instance, as "strategic, informational and transactional" (Weill and Olson, 1989) or "efficiency, effectiveness or other" (Fitzgerald, 1998). Within a strategic view of the firm, each project represents an alternative means by which organisational objectives can be met and, "business strategy formulation will have resulted in the identification of a number of effective IT/IS projects" (Fitzgerald, 1998, pg. 21). This particular strategic view is consistent with the basic premise of transactional

leadership; that leaders clarify the subordinate's role (Bass, 1985, pg. 127).

The world of Financial Directors, however, is not one in which goals and alternatives are definitively clear; because their world is in a constant state of flux and change. Their view is consistent with the resource-based view of the firm, in which competitive advantage is based on knowledge, which is not concerned solely with that which is explicit and which can be clearly communicated throughout the organisational hierarchy, but also with tacit knowledge; with the consequence that effective investment evaluation requires face-to-face interactions (Grant, 1996; Nonaka and Takeuchi, 1995; Spender and Grant, 1996; Porter, 1992):

“One of the strengths that any company [with] a management team that's been around for quite a long while, and worked with each other, is that you actually get to know each other. One of the dangers of management teams that are put together quickly is that they tend to depend rather a lot on what is written down and what the financial projections are. The challenge in all of these things is that the real world doesn't usually work out the way the in which you put into projections. And if it does, you ask, you worry. It sounds very odd to say, but ... things that come in exactly as they supposed to ... you tend to think that someone's manipulating numbers, because the world isn't like that. Things change so often. Something could be worse than the figures but it's good news. I think one has to recognise that true competitive advantage takes time to create. The reason that we are such a profitable company, and we make good returns, is because a lot of the things that we do, and a lot of the position that we've developed, is very difficult to replicate very quickly. Because we're in an industry where things move very quickly, and you therefore have to be constantly changing, modernising your product, and have to be using all the latest technologies you're capable of, continuously differentiating

yourself, rather than allowing that differentiation to be eroded.”

The Directors live in an indefinite world, which takes for granted that certain investments cannot be measured or represented in precise terms of goals and measurable expectations:

“It's very difficult if not impossible to quantify savings. I think it's other factors that you look at. In order to provide the same level of management information that I do now with the computer, I would need an additional army of people. But I've never actually put a project forward to the Main Board to say, "Can I spend a hundred and fifty thousand on an enhancement of the system because I'm going to save six people". We've been able to say, "Although we've not replaced any staff, we've saved people's time”.

Change implies that evaluation is therefore an ongoing, fluid, flexible and responsive process, where goals and expectations are reviewed constantly:

“We say, "We think this is the sort of amounts of money we are prepared to spend". But if we're in a decent financial state, [we] shouldn't be limited [in] any one particular year to any [particular] amount of money. We should be reviewing it as we go through the year, rather than assuming we must hit a budgeted number.”

The role of leadership and evaluation is therefore not one of clarifying goals and alternatives; because goals and alternatives evolve flexibly to meet the changing requirements of the business.

3.2 A knowledge of consequences

Fitzgerald (1998, pg 20) states that, “The first task, in most evaluations, is the identification of costs The objective is to identify fully the costs associated with the project” Information technology evaluation therefore assumes knowledge of the consequences of projects for resources, as measured in cost terms. Fitzgerald broadens the analysis to include the need for knowledge of consequences as expressed in terms of strategy, benefits and second order effects, which are unanticipated consequences. The need for knowledge of consequences has thus become axiomatic within the literature to the

point that it has consistently been seen to be a "problem" within the evaluation process, particularly in terms of assessing costs and benefits (Ballantine et al, 1996).

For instance, let us begin with an observation provided by Ward et al (1996, pg. 223) to the effect that benefits can be overstated in project evaluations "in order to gain investment approval". The source of this behavioural response can be traced to the unanticipated consequences of transactional leadership, where, "Subordinates may take shortcuts to complete the exchange of reward for compliance" (Bass, 1985, pg. 145). Amongst the list of shortcuts listed by Bass is "game playing", and this has been extensively studied within the respected accounting literature on reliance on accounting performance measures (Hartmann, 2000). For example, Hopwood (1972, pg. 170) found that emphasising accounting metrics leads to manipulation of data consistent with the Financial Director's pithy comment:

"It doesn't work if [the] Finance Director says, "I won't accept this project because that number's too high" So what do people do? They change the number."

3.3 A consistent preference ordering

Nutt (1998, pg. 351) concludes that, "many decision makers could benefit from training that sharpens their knowledge of analytical tools found to be useful in the evaluation of alternatives and cautions them about the pitfalls of subjective and judgemental approaches". The "analytical tools" that Nutt has in mind are various, include both quantitative and qualitative approaches, and "offer a variety of ways for decision makers to reliably rank alternatives, using one or several criteria" (pg. 336).

Whilst appreciating the importance of tools, the world of the Financial Directors is somewhat different to that implicit in Nutt's (1998) prescriptions. The key point is that tools do not necessarily provide the means through which preferences can be expressed; there are non-quantifiable elements in decision making which are irreducible to the logic of calculation. The subjective element is expressed in the following quotation in terms of "liking" (or the preferences which may be expressed in terms of broad strategy) and the intrinsic physical qualities of the world which cannot be expressed numerically.

"I think the role of the numbers is to get you through the hurdles; get you through the hoops before they even waste anyone's time. It's to actually do the groundwork and make sure you've collected as much evidence as you can. Otherwise, you have a system where someone says, "oh"; and no-one knows what the hell it is. But all of these projects are on the basis of comparing apples with pears. And, OK, you can reduce them to numbers. But you can't tell me that a pound of pears is the same as a pound of apples. Even if they both cost a pound each they're not. It will also depend on whether you like apples. Whether you like pears. Are they bruised?" (S17).

3.4 A decision rule

Although there are numerous techniques available to those who seek to evaluate information technology (Powell, 1992), the use of accounting information is widely used to provide a decision rule (Bacon, 1992). In particular, discounted cash flow techniques are important for the evaluation of large projects, although payback is a widely used criteria (Bacon, 1992, pg. 347). Both accounting-based and other techniques imply a decision rule; in the case of discounted cash flow, this would be, "select the projects with the highest net present value" and in the case of pay, this would be, "select the projects with the shortest payback".

The automatic use of a rule disguises the importance of broader and deeper judgements that are implicated in long-term decision-making. The Financial Director in the quote below presents the refinement of decision rules as something of interest to academics: but the final decision has to be strategic; "the balance across the portfolio of the things that are good for your business":

"[There is] something of a chasm between the way academics tend to see it and the way it actually works in practice. [Academics] get very excited about these mathematical models of the cost of equity capital, the risk free rates of returns, and all these sorts of things. I don't think in my experience that they're a very significant factor in terms of capital decisions. I think that, actually, in many ways, the DCF bit is just a part of the tool-kit now. I think that things are very much more seen in a strategic sense. I think that one of the dilemmas

that you face is that the problems of DCF calculation is that it makes near term cash flows seem to be very important. It's jolly interesting if you're only interested in the short term, but, you know, [in] the long term you've got to get the balance across your portfolio of the things that are good for your business".

The principles of rational decision-making can therefore be problematised by considering the perspectives of practitioners. Alternatives to transactional leadership and rational decision making, which align more closely with the worlds of the Financial Directors, remain largely marginalized, but have nevertheless been considered by the literature which addresses information technology evaluation. In the next section, the alternatives to rational decision making are first considered before the possibilities implicit in transformational leadership are explored.

4. Transformational leadership

March (1997, pg. 17) points out that the assumption of rational choice neglects some aspects which have been shown to be associated with decision making in practice. In particular, March explores the possibility that individuals make decisions which are appropriate to specific situations and to the identity of the decision maker, even where this may not serve self-interest. This perspective opens up the possibility that evaluation may be based on putative irrational grounds. This possibility is consistent with critiques of discounted cash flow systems of evaluation, which centre on the notion that the modern world is typified by the impossibility of forecasting and doubt about values (Singer, 1994). Brunsson (1985) has suggested that capital investment appraisal which follows rational assumptions can impede change, whilst the changes implied by evaluation are promoted through personal motivation, commitment and confidence. Powell (1992), resolves the question as to whether information technology is different to other kinds of projects, in much the same terms as Brunsson, by quoting Williams, "The important thing in business is not to make good forecasts but to make them come true". Serafeimidis and Smithson (2000, pg. 102) conclude, "The traditional approach to IS evaluation, based on narrow technical and accounting terms, has limited relevance to the role of IS in today's organizations. Organizations are moving towards more entrepreneurial approaches,

embodying some of the thinking of the interpretivist stream of IS research".

Bass (1999, pg 9) suggests that, "Changes in the marketplace and workforce ... have resulted in the need for leaders to become more transformational and less transactional if they [are] to remain effective". Transformational leadership includes charisma, and depends not upon path-goal theory but upon the ability of the leader to inspire subordinates, and to provide intellectual stimulation and consideration at a personal level. The flattening of organisational hierarchy, dependence upon autonomous teams of professionals (who have a greater situationally-dependent technical knowledge than their leaders), and changes in expectations about lifetime employment are associated with the need for leaders to move away from reliance upon contingent reinforcement towards the ability to secure corporate citizenship and identification with organisational values (Bass, 1999, pg. 10). Transformational leadership provides an alternative to transactional leadership, and in the two decades since its formalisation has been shown to be positively associated with performance; this relationship is stronger than for the association between transactional leadership and performance (Dvir et al, 2002).

Bass (1999, pg. 11) argues that, "Transformational leadership refers to the leader moving the follower beyond immediate self-interests through idealized influence (charisma), inspiration, intellectual stimulation, or individualized consideration". Of these, there is evidence within the reasoning of the Financial Directors that evaluation can be used as a form of intellectual stimulation. Intellectual stimulation "refers to how leaders question the status quo, appeal to followers' intellect to make them question their assumptions, and invite innovative and creative solutions to problems" (Antanakis and House, 2002, pg. 10).

The discipline of evaluation encourages subordinates to ask questions:

"It's not accurate questions. Or having to answer [which] is important. It's the fact that if they know they will have to answer questions, they will do thinking that they wouldn't otherwise have done. And that thinking may lead them to a different decision that they wouldn't have reached otherwise. Instead of just

spending money, and thinking whether it was worth it later, they'll think very carefully through, "What money do I think I'll need to spend?", "Why?", "What would I want it for?", "What will the benefits be?" So it imposes some discipline on thought and action."

The point is that those at the top of organisations are not in the best position to take decisions; they are not omniscient:

"Well, really, decisions are made as far down in an organisation as you can possibly can. I think that's the answer. I think the role of the accountant is changing quite substantially. The structured company is gone or going. This whole concept that there's [a] big information flow, everything [going] up the company to the Finance Director, who makes the decision; you know, everybody stands admiring; it's OK. But the whole way in which we're going as an organisation is that the executive directors are more an enabling force. Their judgement is to ask all the right sort of questions. But to try and encourage the people at all levels of the organisation to accept as much responsibility as possible. The way you get numbers to work is that people accept that they're their numbers."

Initiatives reside with managers down the hierarchy and evaluation is concerned with encouraging those managers to innovate:

"So, we do try as much as possible to get the people, the staff and the management, to come up with ideas on how they can improve things. I think as a business we're getting better at it. We're not as good as we'd like to have been in the past. It's very hard, when you're as successful as we've been, to get people to want to change. Change management is living hell. So why go through it when you're the most profitable [business in the sector]?"

Fundamentally, the process is centred upon individuals rather than evaluation *per se*:

"You also have to recognise that you only get one project. If you get a project and do it well then you go on to the next one. And then you'll [be] given more opportunity. If you don't, then you're going to go by the wayside. People are pretty careful. It happens on a human level almost more than on a numbers level. The whole process of who gets selected to do what comes out of people having watched what various people are doing. How they go about doing it, how they manage themselves, manage others. Numbers are part of that."

Information technology evaluation can therefore contribute to the intellectual stimulation that is associated with transformational leadership and its impact on innovation and creativity (Bass, 1999, pg. 11). This leads to a different role for evaluation to that envisaged by transactional leadership. The role of evaluation is:

"to set the framework: this is how we reach these decisions; we expect to see this kind of analysis; to help people think through, or to help my people help other people think through, how do we tackle particular cases, and so that's one role which is as sort of an enabler, a support role for the organisation".

5. Conclusion

Transactional leadership poses a challenge for evaluation, which is as yet unresolved. Transactional leaders set goals, clarify desired outcomes and provide feedback; with the consequence that evaluation is entrusted with a knowledge-based role, and is expected to provide a rational basis for prioritising certain projects over others. Evaluation promises representational faithfulness; thereby providing a systematic basis for valuing alternatives. Projects are selected, implemented and any deviations from plan form a basis for learning and future improvement. The premise is that, with sufficient effort, outcomes will follow on from expectations in a deterministic fashion. Evaluation thus takes responsibility for the consequences of decision-making. This even applies to those elements of a situation that are difficult to predict; for instance, Doherty et al. (2003, pg. 51) suggest that, 'the vast majority of [unanticipated consequences] could be predicted at some point within the systems

development, with careful and systematic analysis'. Yet, the fundamental difficulties of expressing even the basic metrics of cost and benefits remain a hurdle to the realisation of transactional leadership's aim of clarifying the world for subordinates.

What happens if the basic premise of transactional leadership is challenged? What happens if the world cannot be clarified for subordinates? What happens, in other words, if evaluation cannot deliver representational faithfulness and rational decisions? One prospect of this possibility is the imperative to explore the implications of transformational leadership for the exercise of evaluation. Evaluation remains important under transformational leadership, but the way in which evaluation is exercised is changed. Evaluation is no longer premised on the ability to predict future outcomes in an uncertain world. Instead, it becomes a means through which individuals can think through the consequences of their proposals so as to be better prepared to adapt their projects to contingencies as they arise. Evaluation ceases to be a way of managing the world, and becomes a means by which the individual is challenged to think through consequences in a systematic fashion. Evaluation enables the individual to take responsibility.

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