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Introduction

Proponents of the behavioural approaches to the firm believe it may be unwise to begin theorizing about firms from the comfort of one's armchair with analytically convenient assumptions. Rather, one should first try to acquire knowledge about the behaviour of actual firms and human decision-makers in general. This research strategy has a long history. Over a century ago, Marshall's evolutionary view of the firm reflected his considerable knowledge of actual firms, while early work on mark-up pricing by Hall and Hitch (1939) was based on interview/questionnaire data. However, what emerged as the behavioural theory of the firm during the 1950s and 1960s via the work of Herbert Simon, Richard Cyert and James March and their colleagues at the Carnegie Institute of Technology in Pittsburgh (later Carnegie-Mellon University) reflected not just knowledge about firms but also insights from psychology, sociology and organizational science. The key contribution is Cyert and March's (1963) book *A Behavioral Theory of the Firm*. This not only offered a view of the firm that was radically innovative in analytical terms but it looked unlike any previous economics book since it was replete with complex decision-tree diagrams and masses of computer program code.

Cyert and March's book broke new ground by focusing on the firm as an organization of diverse interest groups trying to cope with the complex

challenges arising from external forces and internal politics. It portrays the firm's behaviour as being both driven by expectations and shaped by its past. It is one of the most heavily cited works in the literature on the theory of the firm (Google Scholar lists over 14,000 hits). The publication of a new edition in 1992 (with some of the original's subsidiary chapters by their colleagues removed and a new reflective chapter) and special issues of *Organization Science* (2007) and the *Journal of Economic Behavior and Organization* (2008) devoted to it further testify to the enduring significance of this approach. However, its impact on economics is actually rather limited and its biggest impact has been mainly with organization and management researchers. Although 'behavioural economics' has in the twenty-first century increasingly become part of mainstream economics, the behavioural theory of the firm (hereafter, BTF) has faced considerable hostility from mainstream economists. The BTF did little to inspire, what is now being branded as 'behavioural economics', though both approaches are interested in the significance of cognitive biases (for example, what is now commonly referred to as 'sunk cost bias' can be seen as driving what March and Simon, 1958, label as unwarranted 'persistence').

Decision-Making Processes and the Goals of Firms

The failure of the BTF to win widespread approval from economists is easy to understand: it clashes with mainstream economics in key areas. Most significantly, it rejects the assumption that all choices should be seen as acts of constrained optimization. Thus while Baumol and Marris rejected profit maximization in favour of sales revenue maximization and growth maximization, respectively, the BTF rejects *any* notion of optimization. Instead, it adopts

Simon's (1955, 1959) view that decision-making involves 'satisficing', that is, searching for satisfactory-looking solutions to past or anticipated failures to meet performance targets or aspiration levels. Optimization is problematic in the face of recognized potential for surprising new inventions and creative choices that may be made by rival firms or fickleness in consumer spending. Where the incompleteness of relevant information is exacerbated by the dispersion of information that does exist, relative payoffs to different search strategies cannot be specified in advance. Even if information is freely available, attention is limited. People have limited information-processing capacities that preclude them from dealing with complex problems without making simplifications. Though they may want to take good decisions, they have limited capacities to do so: in Simon's words, they suffer from 'bounded rationality', and they seek to cope with the challenges they face by using simple decision rules, routines or heuristics that they believe will give good enough results.

This is reflected in the view of choice at the heart of the BTF, which is based on 'yes/no' status checks with linked 'if/then' instructions (which in some cases will initiate further status checks, and so on). This is similar to how a thermostat functions: if room temperature exceeds a pre-set level, the thermostat is programmed to switch off the heating system; this allows room temperature to fall until it hits a pre-set 'too cold' level, whereupon the thermostat turns the heating back on. If we know the rules and procedures used in the firm to classify situations and then generate actions, that is, if we know the programs according to which the firm operates, we may be able to predict its behaviour. This is essentially what Cyert and March (1963, Ch. 7) do, with remarkable accuracy, in their study of how a department store set its prices, and

when and how far it opted to markdown stock that was moving too slowly. Their 'general model' (*ibid.*, Ch. 8) consists literally of a computer programme with aspiration levels for profit, production, inventory and sales, linked by feedback loops.

Satisficing and Efficiency

From the standpoint of conventional economics, firms that use simple decision rules seem to be operating in a naïve and sloppy kind of manner and are likely to be wiped out by rivals that employ much more sophisticated processes.

Sometimes this is exactly what happens with sleepy, low-achieving firms that do not wake up in time and learn better decision rules. However, Winter (1964) proposed that the reverse can also hold: firms with simple rules and procedures for dealing with changes in their environments or internal difficulties may respond very quickly, whereas firms that gather as much information as possible and then carefully process it may achieve inferior performances since, by the time they have worked out the best response to the original problem, further changes could have taken place.

A further indication that satisficing theory does not necessarily imply lethargic business behaviour comes from the fact that the targets/aspiration levels that decision-makers strive to meet are seen in the BTF as neither static nor purely self-defined. Central to the theory is the idea that aspiration levels tend to follow attainments with something of a lag, that is, decision-makers raise their sights after a run of above-target results and do not cling to targets that they repeatedly fail to meet despite trying to find better ways of meeting them. As well as using their achievements as guides to whether they are setting

appropriate aspirations, decision-makers use the external reference standards—the performance of rivals or benchmark organizations—as indicators of what they should be hoping to achieve. Given this, the opening up of national markets to external competition could have significant potential to promote productivity growth by forcing domestic firms to make their products ‘world class’ rather than focusing on local reference standards.

The adjustability of aspiration levels in a competitive context can be seen to align the BTF with the non-equilibrium thinking of Schumpeter, whose vision of innovation-driven processes of ‘creative destruction’ implies that firms have to keep trying harder or thinking smarter in order to stay in business as rivals improved their products and production methods. However, before Winter (1971) pointed this out, the potentially revolutionary impact of the BTF had been diminished by attempts to show that a satisficing perspective was unnecessary since rule-based behaviour could be absorbed into an equilibrium framework: Baumol and Quandt (1964) offered a model of ‘optimally imperfect’ behaviour using decision rules and Day (1967) portrayed the BTF as ultimately implying that successive iterative adjustments by firms would lead them to converge to a profit-maximizing outcome.

Sequential Attention to Goals

The BTF sees firms and other organizations as pursuing multiple aspirations, such as targets for their rate of return, growth of sales, ratios of inventories to sales or production, market share, rate of reduction of unit costs, and so on. This involves a dual clash with mainstream thinking: not only are there multiple goals specified in terms of targets rather than a single profit-maximization objective,

but the firm is also seen as giving sequential attention to goals rather than being willing to make trade-offs between them. That is to say, managers are viewed as failing to give attention to the possibility that what they do in trying to achieve the goal on which they are currently focusing will have adverse implications for their ability to meet other performance goals. Instead, they follow a 'we'll cross that bridge when we come to it' policy: they focus on finding a solution to the most important target that is not currently being met and they try to find a means of meeting it, normally by searching locally and/or following particular obsessions (Winter *et al.*, 2007), that is, looking for a solution within their familiar domain rather than by making radical explorations of unfamiliar territory. If their chosen course of action fixes the problem in question but causes other targets not to be met, they shift their attention to the most important of the latter and search for a sufficiently promising way of meeting it, and so on.

Not worrying about spillover effects between different goals greatly simplifies short-run management of the organization but has potential to cause it to 'go round in circles' in the long run, something that is commonly observed. For example, car-makers may oscillate between cost cutting and allowing engineers and styles a freer rein. Sequential attention to goals may sound inefficient compared with working out an optimal trajectory but it may help the firm survive in the long run if its customers are themselves coping with bounded rationality by setting checklists of targets and ranking their goals in order of priority rather than trying to compute overall values for products they are appraising. If trade-offs are made in directions that reflect some goals being easier to reach than others, the firm will gain more experience in the favoured

direction, biasing its choices that way in future—in much the same way that mainstream economists have let their grasp of reality slip whilst pursuing the goal of doing economics formally using their favoured techniques (Augier and March, 2008, pp. 103–4). So long as no goal that is assigned high priority has an unrealistic aspiration level, sequential attention to goals makes it less likely that other goals will fade away since they will receive attention periodically. The firm will thereby maintain some capacity as an all-rounder rather than getting excellent in some areas at the catastrophic cost of failing to meet customer targets in other ways.

Organizational Choice and Organizational Slack

Though the firm as a whole is seen in the BTF as having a set of goals, the BTF follows Simon (1945) and March and Simon (1958) in seeing organizations as consisting of individuals who are striving to attain their own ‘sub-goals’. The firm-level goals serve as a means of focusing the organization on collective, coordinated action and, to some extent, individuals do pick up the values and aspirations of the firms within which they work. All the time, however, the different parties are asking themselves whether what is being proposed for the firm as a whole is going to enable them to meet their own goals. If the answer looks like it will be ‘no’, then they will try to bargain for alternative policies (for example, bigger budget allocations to their own departments) and if they cannot get satisfactory policies they may leave the organization altogether.

As a collection of individual agents with different aspirations and different things to offer, the firm is best seen as a coalition of different interest groups and sub-groups. This coalition includes not merely managers and line

workers (in various different departments) but also shareholders, bankers, supply chain partners and regular customers. They all may have relationships with the firm over a significant period. Their willingness to stay loyal in the face of short-term disappointments while voicing their dissatisfaction about the situation may help the firm survive into the long run as a means of enabling them meet their own goals (Hirschman, 1970). However, they will exit if they cannot meet their 'transfer earnings'/'reservation price', that is, if it looks like their net returns from being part of the coalition are chronically falling short of their targets. As with firm-level goals, individuals' reservation prices may be shaped by their knowledge of returns being achieved in other organizations: their discontent may be aroused by discovering they could do better elsewhere rather than by a decline in what they get from membership of their current firm. They can be persuaded to stay in the coalition by being offered more, which must either come from search within the organization leading to the discovery of how to achieve a Pareto improvement in what it does (for example, a way of producing more output, at lower price, without sacrificing profits and jobs or requiring anyone to work harder), or it must come at the expense of someone else in the coalition.

The concept of organizational slack plays a key role in the BTF in explaining how a firm copes with changes in external competitive pressures and/or increasing demands of its coalition members. The amount of slack available in the firm at any moment is the sum of the difference between the actual returns being achieved by coalition members and their reservation prices. It arises not because of any collective decision that slack should be created to make the firm more resilient but rather as a result of rising attainments being

followed by lags in increases in aspiration levels when coalition members bargain over returns. Because bargaining involves asymmetric access to information, coalition members are unsure of each other's reservation prices; they cannot be sure how far they can push their demands without their attempt to extract more backfiring and resulting in a situation where the coalition disintegrates or they are forced to leave it. So long as their returns are not less than their reservation price they moderate their demands, potentially enabling other coalition members to achieve returns above their respective reservation prices. However, when their returns fall below their targets they take the risk of bargaining more aggressively and may extract a bigger slice of the firm's resources if others have been earning above-target returns and are prepared to make concessions rather than risk losing the ability to meet their targets. Under pressure, then, shareholders may tolerate lower dividends, workers may accept more demanding production schedules, bankers may allow delays in repayments of loans, customers may put up with higher prices, suppliers may agree to supply components more cheaply, and so on.

Strategy versus Muddling Through

Impressions that the BTF lacks a vision of firms as lean, aggressively competitive and entrepreneurial are reinforced by Cyert and March's emphasis on the tendency of firms to attempt to 'achieve a negotiated environment' (for example, by lobbying politicians for supportive policies) and by 'uncertainty avoidance' (much in line with Galbraith's views of the modern corporation). Certainly, the focus of the BTF has mostly been on everyday administrative choices rather than on major choices about which strategic direction a firm should take. However,

the BTF can be employed to understand strategic choices. For example, diversification and vertical integration decisions may be seen (as in Earl, 1984) as responses to perceived problems with the set of options that are considered and deemed feasible being limited by established ways of thinking—for example, some changes of direction will be ‘unthinkable’ and some threats impossible to acknowledge (see also Schoenberger, 1997)—and the existing balance of power within the organization.

Looking Ahead to Later Chapters

The behavioural approach is particularly significant in relation to transaction cost theory (see Chapter 13)—whose leading proponent Oliver Williamson was a product of the Carnegie group and employs their ‘bounded rationality’ assumption (albeit in a less radical way than his mentors: see Augier and March, 2008)—and to the dynamic approaches covered in Part 5. Useful bridges to Part 4 are provided by Winter (1986), who reflection on orthodox critiques of the behavioural approach, and by Pitelis (2007), who compares and contrasts the behavioural theory of the firm with Penrose’s theory of the growth of the firm.

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