

**OPERATIONALIZING THE CONCEPT OF  
CONFLICTING FUNCTIONAL DEMANDS**

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**Nicolay Worren**

Norwegian University of Life Sciences (NMBU)

School of Economics and Business

P.O. Box 5003

1432 Aas

Norway

Tel: +47 91 000 693

E-mail: [nicolay.worren@nmbu.no](mailto:nicolay.worren@nmbu.no)

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## **Abstract**

A number of authors have described the challenge of managing organizations that are subject to conflicting functional demands. These authors belong to different sub-disciplines of the field, and have demonstrated that conflicting external demands may result in inconsistent strategies, organizational structures, and management practices. Although the issue is widely recognized, the concept of “conflicting functional demands” has rarely been operationalized. The lack of operationalization complicates the interpretation of existing research. It also leads to weak prescriptions for practice. The question raised in this paper is thus how we may operationalize this concept and assess it empirically. The key proposal is to separate between function and structure (or ends and means) and to define functional conflict as a negative interdependency between a particular function and a structural element (e.g., a management practice or organizational unit). This reconceptualization suggests an alternative manner in which to test dualistic models that contain two opposing factors, such as exploration vs. exploitation, related vs. unrelated diversification, or broad vs. narrow strategy.

## **OPERATIONALIZING THE CONCEPT OF CONFLICTING FUNCTIONAL DEMANDS**

Large and complex organizations tend to operate in an environment that pose conflicting functional demands. In the short term, they may face pressures for improved profitability. In the long term, they may need to develop new products or services to stay competitive. Some companies, such as multinational technology firms, may have subsidiaries that serve customers that expect customization to their particular needs. But the market that the same firms operate in may at the same time reward those firms that are able to achieve global integration, including standardization of offerings. Other companies, such as consumer goods firms, address more than one market segments at the same time. They offer simple, low cost products or services to customers in a budget segment. But they may also target a premium segment, with customers who are willing to pay higher prices for sophisticated products and services.

Conflicting functional demands create considerable challenges for managers, who must select among (or try to balance) contradictory systems, practices, and structures in order to meet the demands. For example, establishing a separate Research & Development group may be needed to create future products and services, but such a group may be less able to contribute to short term, incremental improvements in existing product and services. A geographically structured organization, with national or regional units, may be the best choice for a multinational firm that seeks to increase its ability to address local customer requirements, but it may not be optimal in terms of achieving global integration. Creating two different business units, one targeting the budget segment, and the other the premium segment, may be a solution

for a consumer goods firm, but may hurt the ability to leverage common processes and technologies across the two segments.

Such dilemmas have long been recognized by authors in several different sub-fields. They have been referred to as *conflicting functional demands* in the organization design literature (Child, 1984; Donaldson, 2001); *competing logics* in institutional theory (Greenwood, Diaz, & Li, 2010), *negative synergy* in strategic management (Mahajan & Wind, 1988), and *role conflict* in organizational behavior (Rizzo, 1970) .

The importance of the issue is widely recognized and this has spawned a number of studies of how organizations respond when they are subjected to conflicting functional demands (e.g., Greenwood, Raynard, Kodeih, Micelotta, & Lounsbury, 2011; Pache & Santos, 2013; Payne, 2006; Van de Ven & Ferry, 1980). Although the issue is widely recognized, the underlying concept has rarely been operationalized or measured directly ((Gresov & Drazin, 1997). In this paper, I argue that this means that a key moderating variable – and in some cases a potential cause of important phenomena - remains unsubstantiated in the extant research. For example, in the ambidexterity literature, the organization design principles aimed at furthering *exploitation* would be assumed to be in conflict principles aimed at furthering *exploration*. But *to what extent* are these two goals in conflict? May some of the measures implemented to support exploitation, such as routines and control systems, also aid in pursuing exploration, and vice versa? One can imagine that there in fact is a continuum, from a strong degree of conflict, to a weak degree of conflict, in which case the two goals may be pursued in parallel, without extensive organizational adjustments (Farjoun, 2010). But only operationalization and subsequent measurement of the concept can confirm whether this is the case or not.

A lack of operationalization also means that we can only produce weak prescriptions for managerial practice. In the strategy literature, for example, a key prescription for multi-business firms is to separate units that pursue different (and potentially conflicting) strategies, such as differentiation and cost leadership (Porter, 1980). However, to my knowledge, no method has been proposed that can aid managers in evaluating when a given level of difference or conflict becomes dysfunctional and should result in such a separation.

The question raised in this paper is thus how we may operationalize the concept of competing functional demands – or more simply *functional conflict* - and assess it empirically. Building on the work of system theorists like Suh (2001) and Gresov & Drazin (1997), I argue that it is necessary to separate between *functions (ends) and structure (means)* in order to define this term and achieve conceptual clarity. Having made this fundamental distinction, I then outline an approach for empirical measurement that may rely on both perceptual and objective data.

The article is structured as follows. I first review how this phenomenon has been described in various strands of the strategic management and organization theory literature. I then define the term “function” and describe why a functional approach may help address the current challenges related to concept of conflicting functional demands. Two specific measurement methods are discussed as a way of operationalizing the concept (one based on perceptual data, the other based on objective data). I end with a discussion of some broader implications of this approach for research on ambidexterity, diversification and broad versus focused strategy. The aim of this article is to contribute to conceptual clarification and to identify an indicator that can be utilized by both scholars and managers to assess the degree of functional conflict.

## AN OVERVIEW OF THE LITERATURE

The key issue of interest here has been discussed by many authors, belonging to different sub-disciplines of management.

In strategic management, Porter (1985) described two generic strategies (cost leadership and differentiation) and argued that they were in conflict<sup>i</sup>. The key argument was that efforts at achieving differentiation are costly, and thus incompatible with cost leadership. He claims that a firm will compromise its ability to achieve competitive advantage if it does not make a choice between these generic strategies. However, a larger firm may be able to combine different strategies as long as it separates sub-units pursuing different strategies. A specific example that is mentioned is a British hotel firm with five different chains, each targeting a different customer segment.

A related, but less well developed, concept in the strategic management literature is that of *negative synergy*<sup>ii</sup> (Mahajan & Wind, 1988). Scholars who have examined corporate mergers and acquisitions have argued that potential positive synergies between two companies are often exaggerated and potential negative synergies are frequently neglected (Shaver, 2006; Shayne Gary, 2005). The result is that the realized profits of the merged entity will be less than the profits of the independent entities prior to the merger. An example (cited in Johnson, Whittington, & Scholes, 2009) is the 2008 acquisition of Merrill Lynch by Bank of America. Merrill Lynch lost business after the merger because it was no longer allowed to advise on deals targeting corporations that were clients of Bank of America.

Another area in strategic management that deserves mention is research on strategic decision making processes. A general finding in this literature is that there is a tendency in decision making situations to start searching for a solution at an early stage, instead of investing time in defining the problem (Baer, Dirks, & Nickerson, 2013). Frequently, the search is dominated by one particular requirement, such as the need for cost reductions (Nutt, 2002). A more careful consideration may have uncovered other requirements, such as the need to increase product quality, that may be negatively affected by the proposed solution aimed at reducing costs. Various approaches for strategy processes, and problem solving more generally, assume that the quality of the solutions that are generated will increase if one is able to include a consideration of multiple (and potentially contradictory) goals and requirements in the formulation of the problem (e.g., Nutt & Backoff, 1993).

If we turn to organizational theory, we find a similar situation, where this phenomenon is described in several different strands of the literature. The key assumption in *contingency theory* (Donaldson, 2001) is that there is no universally valid organizational form, and that managers must adopt an organizational structure that reflects the demands in the business environment (as well as the organization's own strategic intent). In the original version of this theory, it was assumed that one particular structural option would fit a particular contingency factor. A classic example would be a functionally organized firm with one main product, but which grows over time and ends up serving several different customer segments. More diverse customer requirements might lead to higher product diversification, which in turn would necessitate a shift to a more decentralized, multidivisional structure. A more recent example would be product oriented firms that gradually become more oriented toward delivering solutions (i.e., customized

combinations of products and services). Such a strategy requires these firms to move from an organizational structure based on products to one based on customer segments (Day, 2006; Galbraith, 2002)

Yet Child (1984) argued that managers often face multiple contingencies, with different structural implications for the design of the organization. He concluded that this problem had not been recognized sufficiently, and that it is a key limitation of the contingency approach. However, he also mentioned that it may be possible to satisfy two conflicting requirements (or contingencies) simultaneously by internal differentiation, such as when companies split into two business areas, one employing mass-output, standardized technology to meet a stable environment, and another employing more flexible processes to customize products to individual customers.

This idea is developed more extensively by authors interested in *organizational ambidexterity*, although most of the theorizing and empirical studies in this area have focused on one particular challenge, namely, that of balancing exploitation (i.e., achieving short term profitability or efficiency) and exploration (i.e., longer term innovation). As in the examples cited above, the main intervention that has been prescribed is internal differentiation, i.e., separation between units facing different requirements. More recently, authors have also begun to investigate alternative ways of achieving ambidexterity that does not necessarily require structural separation (e.g., Birkinshaw & Gibson, 2004).

A similar concept is also discussed by authors within *institutional theory* (e.g., Pache & Santos, 2013) and *resource based theory* (Pfeffer & Salancik, 1978). Compared to the theories mentioned above, these authors incorporate stakeholders more explicitly. The main argument is



that organizations must meet the interests of different stakeholders or interest groups (e.g., customers, suppliers, government), and that these are frequently incompatible with each other. This literature is typically less rationalistic in its orientation, in describing various political and symbolic tactics that managers use to respond (or appear to respond) to conflicting institutional demands (e.g., (Oliver, 1991).

We may consider *conflicts of interest* as a potential cause of functional conflict. This issue is at the heart of agency theory (Jensen & Meckling, 1976), which considers the relationship between shareholders and managers in firms. The key assumption is that shareholders (principal) and managers (agents) have competing goals that they seek to maximize. This gives rise to so-called agency costs (e.g., the cost of monitoring the agent's actions) when the principal delegates authority to the agent. Traditionally, agency theory has held an "outsider" perspective on corporate governance, but Child & Rodrigues (2003) argued that one may use the same approach in considering the relationships inside an organization, such as between top managers, making strategic decisions, and lower level managers, making tactical decisions.

At the individual level, a related term is *role conflict*. However, it has been defined in terms of its effects: Rizzo (1970) defined role conflict as stress and dissatisfaction that role holders experience as a result of being subjected to conflicting expectations. These expectations are in turn the basis for defining performance standards (e.g., used in performance appraisals). A related issue is role ambiguity, i.e., a lack of clarity with regards to expectations. Both have been extensively studied by scholars in organizational behavior (for a review, see Van Sell, Brief, & Schuler, 1981). Traditionally, one has assumed that role conflict and ambiguity were caused by a

violation of the classic administrative principle of single accountability (i.e., that each employee should be accountable to only one superior) (ibid.)<sup>iii</sup>.

In the literature on international management, the external market demands are often characterized by means of the integration-responsiveness framework (Bartlett & Ghoshal, 2000; Doz, 1986). Some firms primarily face demands for responsiveness to local demands (e.g., firms in the food industry, which are highly dependent on consumer tastes). Such firms usually organize themselves as a network of independent country subsidiaries. Others primarily face demands for global integration (e.g., manufacturers of products such as PCs, which are similarly configured around the world). Firms in this category usually consolidate their activities globally. But there are also a subset of firms that face equally strong pressure for responsiveness and global integration (called a “transnational environment”) and which requires a combination of structural and cultural means to achieve both differentiation and integration across countries (Ghoshal & Nohria, 1993).

The theories reviewed so far focus on one particular type of conflict, or a specific unit of analysis. But more generic models have been also been proposed, which apply to any kind of system. The identification of functions, and the resolution of functional conflict, was at the heart of Russell Ackoff’s contribution to systems theory (Ackoff, 1971; Ackoff & Emery, 1972). Nam Suh (2001), an engineering professor, argues that functional conflict (or what he terms “coupling”) is a cause of complexity, and that minimization of functional conflict should be a key goal for the design of both physical and social systems.

An overview of concepts in the existing literature related to conflicting functional demands is listed in Table 1.

TABLE 1

Overview of concepts similar to *conflicting functional demands* in different literatures within management, the organizational sciences, and systems theory (The table is continued below).

	Author(s)	Concept(s)	Focal point	Unit(s) of analysis
Strategic management “positioning school”	Porter (1985)	Inconsistent generic strategies	Cost leadership versus differentiation strategy	Firm or business unit strategies
Strategic management “process school”	Nutt (1993) Chakravarthy & White (2002)) Mason & Mitroff (1981)	Tensions Goal conflicts Problem interactions	Any kind of contradiction between interests, concerns, goals, etc.	Issues within the organization or between the organization and its environment
Institutional theory	Powell and DiMaggio (1991) Pache & Santos (2011) Greenwood et al. (2011)	Competing demands Competing logics	Demands (or “pressures”), often associated with different interest groups or stakeholders	The organization of business groups or individual firms/institutions Management practices
Contingency theory	(Child, 1984) (Donaldson, 2001) Gresov (1989)	Multiple contingencies Conflicting functional demands	External requirements that the organization needs to meet to be effective	The organizational structure of firms or business units
Resource dependency theory	Pfeffer & Salancik (1978)	Incompatible demands	Resource acquisition and control	Organizations and sub-units

TABLE 1 (Continued)

	Author(s)	Concept(s)	Focal point	Unit(s) of analysis
Ambidexterity	O'Reilly & Tushman (2008) Markides & Chu	Conflicting demands	Choice (or balance) between exploration versus exploitation	The organization and leadership processes in firms or sub-units
Agency theory	Jensen (1976) Eisenhardt (1989)	Agency conflict	Delegation of authority from principal to agent	Shareholders vs. managers
Role theory	Rizzo et al. (1970)	Role conflict	Effects of role conflict on individual performance and job satisfaction	Role holders
International management	Bartlett and Ghoshal (2000) Prahalad & Doz (1987)	Competing pressures Competing forces	Global integration versus local responsiveness	The organization and leadership processes in multinational corporations
Systems theory and engineering	(Ackoff & Emery, 1972) (Suh, 1990)	Competing requirements Coupling	Contradictions between functional requirements	Systems (products, processes, or organizations)

## ANALYSIS AND EVALUATION

This review of extant research covers authors from a range of sub-disciplines and theoretical perspectives, using different terms and studying different aspects of strategies and organizations. Nonetheless, they all describe a similar phenomenon, the fact that organizations (or sub-units within organizations) are sometimes subjected to two or more conflicting demands.

Many authors assume that conflicting demands will generally lead to poor performance, as managers are forced to either prioritize one demand or requirement at the expense of the other, or make trade-offs that result in mediocre performance with regards to each of the requirements (e.g., Greenwood et al., 2011; Gresov, 1989; Payne, 2006)<sup>iv</sup>.

However, the majority of empirical studies on this subject suffer from two important limitations. The first limitation is that few authors have operationalized and measured the concept directly. Two examples from the strategic management literature may illustrate this challenge. Yin & Zajak (2004) compared the performance of two categories of pizza restaurants: Restaurants that offered one type of service (either dine-in or delivery) or two types of services (both dine-in and delivery). They found that, on average, firms pursuing two types of service perform worse than those that focus on one type of service (however, they also found that this depends on the governance structure of the restaurant chain). They explain that the cause of this result is that having two types of services represent a more complex strategy, and that a complex strategy is “more likely to be subject to conflicting demands and can create uncertainty and instability in organizations” (p. 371). In a somewhat similar study, Huckman & Zinner compared *focused and unfocused firms* in the biopharmaceutical industry. They found that focused firms achieved higher output and productivity than unfocused firms. A key element of the explanation is that broader (or mixed) strategies imply that the firm is engaged in “conflicting or competing operational activities” (p. 177). This explanation is certainly plausible and logical. However, the concept of conflicting demands (or activities) is not operationalized or assessed: It is assumed to exist, or assumed to cause an observed effect (i.e., poor performance), but it has

not been measured directly. For this reason, we do not know what the *degree* of conflict was between the competing goals or activities in the firms studied.

The second limitation is that many authors have failed to distinguish between *function and structure* (or alternatively, *means or ends*, or what Farjoun (2010) calls *outcomes and mechanisms*)<sup>v</sup>. As one example, one can consider the empirical studies on the effects of ambidexterity on performance (e.g., Cao, Gedajlovic, & Zhang, 2009; Jansen, Simsek, & Cao, 2012; Wong, Desanctis, & Staudenmayer, 2007). In the early studies, ambidexterity was simply operationalized as having separate units for exploitation and exploration (Raisch & Birkinshaw, 2008). More recently, authors have constructed a questionnaire and asked managers to rate priorities or activities in their organizations that are supposed to contribute to either exploration or exploitation (for example, “We experiment with new products and services” or “We regularly implement small adaptations to existing products and services”)(Jansen et al., 2012, p. 1292-93). Different definitions exist. For example, some authors assume that learning processes relate to exploitation, while others assume that it relates to both exploration and exploitation (see Popadiuk, 2012 for a review). However, there is now fairly extensive research that suggests that such dualistic models are too simplistic. Some management practices and processes that are typically associated with exploitation (e.g., bureaucracy, routines, and control systems) may in fact support exploration as well (Craig, 1995; Farjoun, 2010).

Despite 30 years of research, key proponents of the ambidexterity concept have recently acknowledged that we know little about the antecedents and performance outcomes of ambidexterity (Raisch & Birkinshaw, 2008) and that the construct itself is unclear:

“(....) there remains some confusion about what precisely the term “organizational ambidexterity” means (...). The generic use of organizational ambidexterity is vague and simply refers to the ability of a firm to do two things simultaneously (e.g., compete with different technologies or in different markets).” (O'Reilly & Tushman, 2013, p. 15)

One obvious consequence of this lack of precision is that it becomes difficult to compare and evaluate the findings of different empirical studies. But there are also other implications. Essentially, a lack of operationalization (and empirical measurement) of the degree of conflict in functional demands means that an element in the causal chain remains unsubstantiated. It remains unclear why two or more demands or requirements are in conflict in the first place, and the extent to which there are in conflict (if one assumes that it is not a binary but a continuous relationship). Subsequently, it also becomes difficult to evaluate the performance outcomes of conflicting demands. This is problematical for strategic management and organizational theory, because there is already considerable uncertainty about the causality with regards to the linkages between external demands, the strategies or goals that are adopted by firms, choices with regards to organizational design, and performance effects (cf. Child, 1984). There is inconclusive empirical support even for some of the most popular management and organizational theories (Arend, 2006; Carter & Hodgson, 2006; Donaldson, 1995; Hill, 1988; Pfeffer, 1997).

A lack of operationalization also weakens the prescriptions that we can derive from the research. The majority of managers will probably agree that one should try to avoid strategies that are conflicting, or avoid merging firms or sub-units with “negative synergy”, but they may find it difficult, without clear criteria, to identify exactly when and how strategies or organizational designs actually contain such conflicts. The most well-known management tools do not seem to

include this consideration. For example, in the balanced scorecard methodology (Kaplan & Norton, 1996), there is a tool (called Strategy Maps) for visualizing the linkages between strategies, goals and KPIs. However, it does not include a technique for identifying which goals or KPIs that may be in conflict. Similarly, a well-known framework for organization design, the so-called Star model (Galbraith & Kates, 2007), emphasizes the need for alignment between strategy, structure and processes in an organization, but does contain guidelines for dealing with conflicting strategies, or criteria for separating sub-units that have mandates that are incompatible with each other.

The absence of operationalization (that may be developed into prescriptions, such as diagnostic tools with decision criteria) may lead managers to ignore or underestimate conflicting functional demands. On the other hand, without operationalization and measurement of the concept, there is also the possibility that one may *overstate* the existence and prevalence of conflicting functional demands. Within organizational theory, two different approaches - institutional theory (Scott, 1995) and resource dependency theory (Pfeffer & Salancik, 1978) - rely on the argument that organizations must meet the interests of different interest groups, and that these are frequently incompatible with each other. However, Donaldson (1995) argued that authors in these fields have exaggerated this problem. He pointed out that the result of one of the key studies (Friedlander & Pickle, 1968), which Pfeffer & Salancik (1978) cited in support of their argument, actually suggested that members of different stakeholder groups do *not* have conflicting interests and actually *share* interests to a great extent.

The question is thus how we can operationalize functional conflict and analyze the concept more explicitly, both in a practice setting (e.g., when formulating a strategy or designing



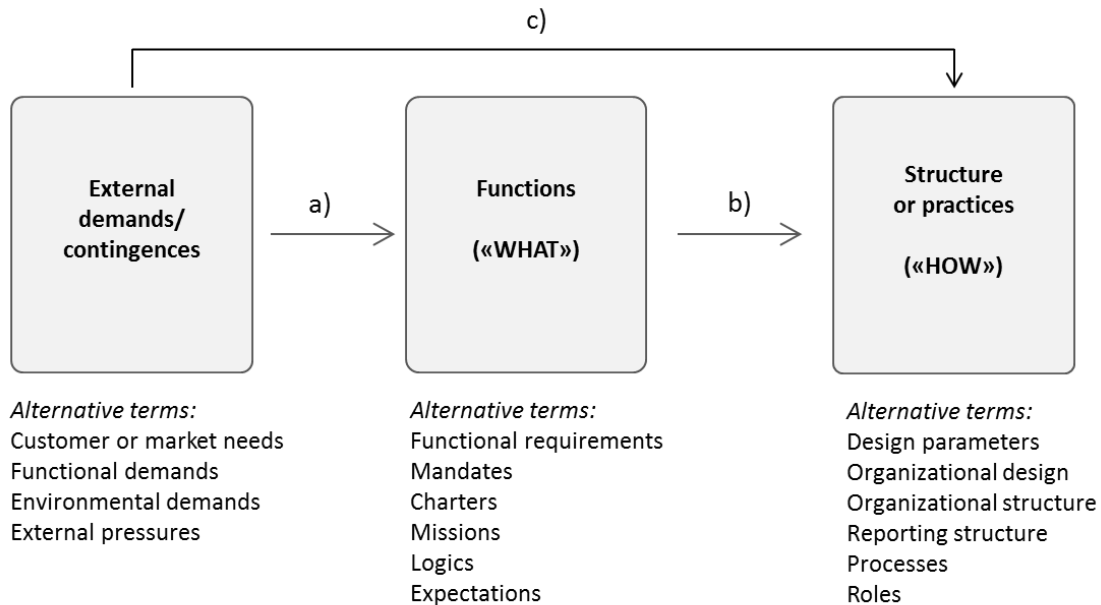
an organization) and in theory development and testing. Two main issues need to be considered: The definition of the concept and the measurement approach.

## PROPOSED APPROACH

**Definition.** Within the contingency school in organizational theory (Donaldson, 2001), it has been fairly common to relate external demands directly to organizational structure (e.g., Egelhoff, 1982)(the relationship marked c) in Figure 1). For our present purposes, however, it is necessary to introduce an intermediate level, or domain, between external demands on the one hand, and structure or practices, on the other. This domain is that of *functions*, or functional requirements, to borrow a term from engineering. A function is here defined as *a desired outcome*. An “outcome” is the product of an individual’s or a system’s actions (Ackoff & Emery, 1972). At the firm level, functions may be viewed as an operationalization of the firm’s mission, but they may also be expressed in other ways (e.g., in the form of strategies, goals, etc.). Similarly, at the sub-unit level, the function of a sub-unit can often be derived by considering the sub-unit’s purpose, mission, or mandate (e.g., “provide customer service”, “manufacture high quality products”, or “ensure compliance to policies and regulations”). In order to perform the functions, one needs a structure. In engineering, structure as defined here is equivalent to “design parameters” (Suh, 1990). In the present context, a structure may be an organization (or a sub-unit within an organization) and/or management practices/processes.

## FIGURE 1

FIGURE 1



Three different domains related to organization design (Suh, 1990; Worren, 2014).

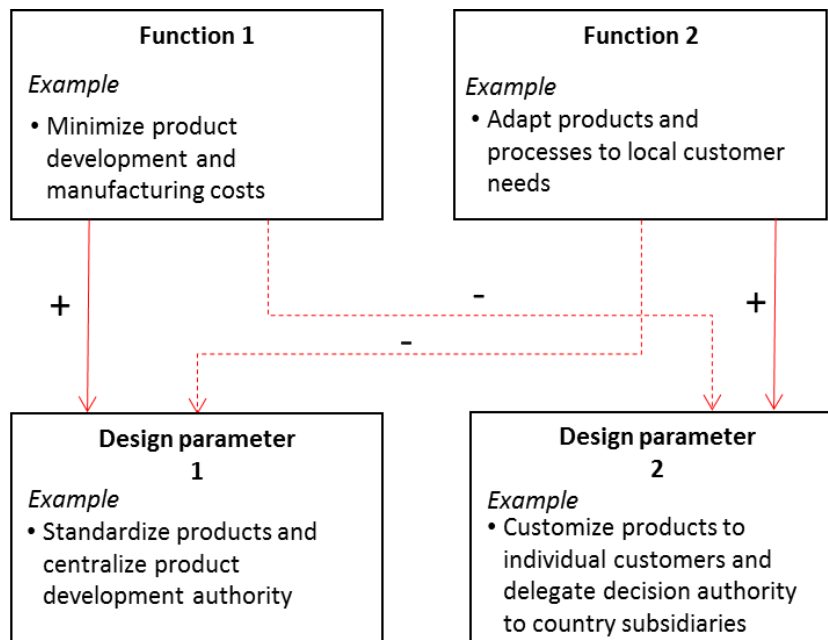
As pointed out by Gresov & Drazin (1997), structure does not equate to function. Gresov & Drazin predict that environmental demands dictate the functions that an organization must perform (the relationship marked a) in Figure 1), but not the specific structure (the relationship marked c) in Figure 1). The reason is the possibility of equifinality, which implies that the same set of functions may be satisfied in different ways (the relationship marked b) in Figure 1). As an illustration, all banks need to manage risk, including assessing the creditworthiness of borrowers (i.e., credit risk). Hence this is a required function that must be performed in order to run a bank successfully. Yet different banks have allocated the responsibility for making credit decisions differently. In the European market, for example, most banks require centralized approval of

major credit decisions. But one bank, Handelsbanken, has succeeded with an organizational model where 95% of credit decisions are taken at the local level (e.g., by a branch manager) (*Business Quarter*, 2014). Even for more traditional banks, there is considerable variation with regards to the processes used for evaluating creditworthiness and the allocation of responsibility for such decisions (Treacy, 1998).

A functional conflict exists when there are two or more functions, and when efforts to satisfy one of the functions (e.g., the implementation of certain organization designs or management practices) will negatively affect the ability to satisfy the other function(s), and vice versa (Suh, 2001). This situation is illustrated in Figure 2a, which shows two hypothetical functions of a multinational technology firm that delivers complex products to customers: “Minimize product development and manufacturing costs” and “Adapt products and processes to local customer needs”. We may assume that the two functions are negatively related, because attempts at fulfilling function 1 - by standardizing products and centralizing decision authority - may compromise the ability to satisfy function 2 – the ability to customize products to individual customers (and vice versa) (In the following, I assume that the functions themselves have been adequately identified and formulated, and only include the consideration of how they relate to each other.).

FIGURE 2A

Hypothetical example from engineering firm. Relationship between two functions (or two functional requirements) and design parameters (e.g., organizational models, practices, etc.) when the functions are interdependent (i.e., there is functional conflict). Efforts at fulfilling Function 1 may negatively affect the ability to fulfill Function 2, and vice versa (indicated with the dotted line).

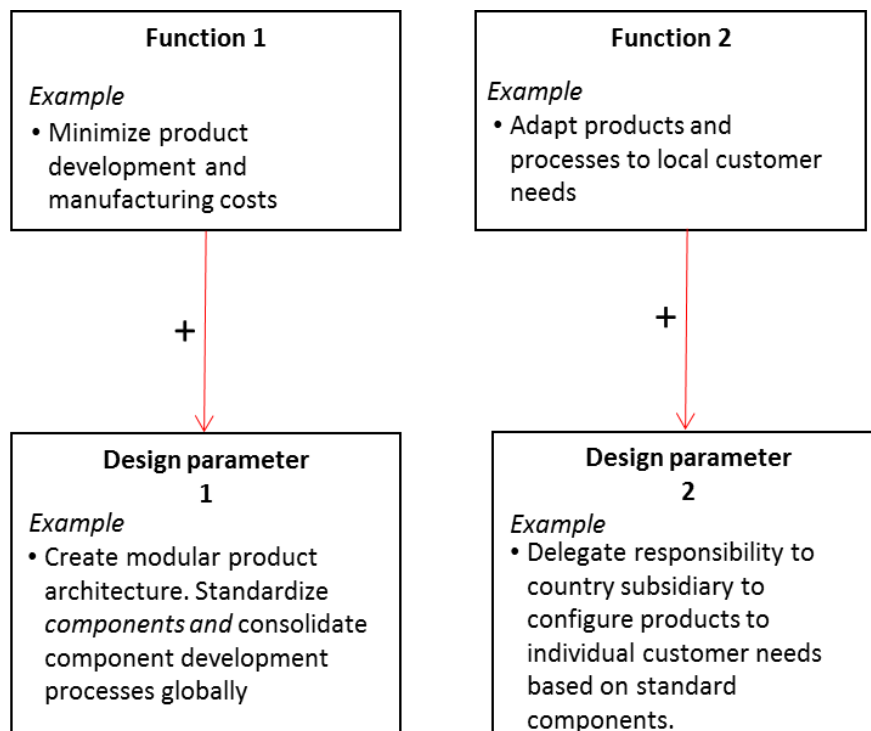


**Resolution of conflict.** The introduction of a distinction between function and structure provides a means for conceptualizing the *resolution* of functional conflict. A functional conflict is usually caused by competing external demands or contingencies that the organization faces. But it also influenced by our ability to conceive of innovative ways of designing the organization to fulfill its functions. Although it may be statistically rare, it is possible to imagine that managers sometimes are able to develop organizational designs that *reconcile* conflicting functions, without resorting to compromises or trade-offs (i.e., that allow the organization to

fully satisfy two functions that were previously considered to be in conflict) (Ackoff, 1999; Ackoff & Emery, 1972). For example, a multinational technology firm may have struggled with the balance between global versus local focus, as illustrated in Figure 2a. But there are technical solutions, combined with new organizational designs, that may make it possible to reconcile this conflict. The two functions may be fulfilled simultaneously, if the firm implements a modular product architecture, combined with an organizational structure that centralizes architectural decisions yet preserves the ability of local units to configure products in collaboration with its customers (Sanchez, 1999) (see Figure 2B).

FIGURE 2B

Situation after the functional conflict (illustrated in Figure 2A) has been removed.



**Proposed operationalization.** In the field of engineering, Suh (1990, 2001) has proposed that functional conflict (or what he termed “coupling”) can be documented by means of a “design matrix” like the one shown in Table 2a and 2b. To construct the matrix, one first identifies the main functions of a system and the main design parameters (i.e., organizational units, roles, processes, etc.) corresponding to each function (Worren, 2014). One then considers whether each function (or functional requirement) is independent or not. The key question, consistent with the definition above, is whether efforts can be taken to fulfill the function in question, without negatively impacting the ability to fulfill other functions. The ideal, according to Suh, is to have an “uncoupled” matrix – one where there 1:1 relationships between functions and design parameters, and no off-diagonal marks. In the organization design context, this means that each unit in an organization can take measures to fulfill its main function (or mission/mandate) without negatively affecting the ability of other sub-units to fulfill their main functions.

TABLE 2A

A design matrix representing a hypothetical, multinational technology firm where there is a functional conflict between two key functions. A capital “X” signifies a strong relationship and a lower case “x” a weak to moderate relationship.

<i>Functions</i>	Organizational units or practices	
	Global organizational units (or HQ)	Country subsidiary units
Minimize product development and manufacturing costs	X	x
Adapt products and processes to local customer requirements	x	X

TABLE 2B

A design matrix where the functional conflict between two functions has been removed

<i>Functions</i>	Organizational units or practices	
	Global organizational units (or HQ)	Country subsidiary units
Minimize product development and manufacturing costs	X	
Adapt products and processes to local customer requirements		X

**Level of analysis.** The concept of functional conflict as defined here is independent of the level of analysis. For example, instead of considering the entire organization, one may consider the sub-units within the organization, such as divisions or business units. Studies confirm that functional conflicts may occur at any level. In a study of 136 divisions in Taiwanese firms, Markides & Chu found that 97 of the divisions faced “strategic ambiguity”, defined as a situation where they are facing conflicting demands (p. 9.). One may also use this term at the project level (e.g., in considering different project requirements relate to time, quality, and cost) (Levitt et al., 1999) and the individual level (e.g., in considering the multiple demands faced by an employee who must serve two or more customers with different requirements, or who reports to two or more managers in a matrix organization) (Rizzo, 1970).

**Negative versus positive relationships.** Although this method originated within the engineering sciences, it may be adopted as a tool to document functional conflicts in organizations. However, one aspect of this approach that may not be transferrable to the social sciences is the fact that it only considers negative relationships (i.e., conflict): The opposite, namely a positive or synergistic relationship between two functions, is not considered<sup>vi</sup>. When considering social systems, it might be necessary to conceptualize the relationship between two functions as a continuum, and allow for the possibility of positive relationships between functions (cf. Wind & Mahajan, 1985). In other words, the key question in this case is *to what extent* a given design parameter (organizational design or management practice) contributes in fulfilling a given function. This leads to a modification of the design matrix (as illustrated in Table 3).



TABLE 3

A modification of the design matrix shown in Table 2a, where relationships between functions are scored from -3 (strongly negative) to +3 (strongly positive).

<i>Functions</i>	Organizational units or practices	
	Global organizational units (or HQ)	Country subsidiary units
Minimize product development and manufacturing costs	+ 3	- 2
Adapt products and processes to local customer requirements	- 2	+3

**Lower-level functions.** For most organizations, there will be a handful of top level functions that can be decomposed to lower level functions, corresponding to sub-units within the organization. When decomposing a higher-level function into lower-level functions, one may find that some lower level functions relating to two units within an organization are positively related, while others are negatively related. The functions of a professional services firm (such as the “Big Four” advisory firms) with both auditing and consulting units may illustrate this. There is a probably a positive relationship between the functions of each of these units with regards to branding, as the two units may both benefit from the firm’s overall marketing efforts. However, there is potentially a negative relationship with regards to sales, as the consulting unit is generally prohibited from performing large or business-critical projects for audit clients. We may assume that managers’ overall evaluation of synergy between units in a firm like this is related to the number (and criticality) of positive and negative conflicts between lower-level functions.

**Types of data.** As with many other constructs, functional conflict may be assessed in two different ways, either using internal, perceptual assessments, or by using external, objective data. In both cases, the first step would be to identify a set with functions, based on, for example, the mission and strategy of an organization, or a description of the mandate of a sub-unit. One would then identify the main design parameters (i.e., the organizational designs and management practices that have been implemented to fulfil the functions).

In an internal assessment, one would tap managers' perceptions regarding the degree of functional conflict, by using a questionnaire and asking them to consider how each of the design parameters contribute to each of the functions (negatively or positively). We would expect to find some degree of variation among managers in their ratings. But the degree of consensus with regards to the ratings is itself an important variable, which may be the basis for an intervention. If there is little consensus, it may help explain, for example, the stance of different managers with regards to proposed organizational changes (e.g., some may perceive a conflict between two functions performed by a unit, and subsequently favor a proposal to split the unit in two smaller units. Others may oppose such a change, because they do not perceive there to be a conflict).

The other main alternative is to collect "objective" data. This is particularly relevant in an organization re-design context, if managers are uncertain about whether a certain combination of sub-units is feasible or not. One illustration, from the author's own experience, is a small IT firm that develops software packages, provide user support, and correct technical errors in the software. In 2014, this firm reviewed its organizational structure, including the grouping of the different teams. One question that arose in this process was whether the team handling incidents (i.e., minor technical issues with a known solution) should be organized together with the team

that handles more complex technical problems (which requires the development of a new solution), or whether it should be organized together with customer support, who handles the incoming calls. In terms of work process interdependencies, the incident team was moderately strongly connected to the two other teams, yet it was considered too small to be organized as a stand-alone unit. In other words, from our perspective here, the question was whether there was a functional conflict between the incident handling team and customer support team, or between the incident handling team and the technical problem solving team. This firm inferred the answer by comparing the experience from similar firms that had tried either of the main design options described (The literature on the design of IT organizations strongly advised against combining incident handling with problem management, as these two units have different priorities (incident handling needs to provide urgent response to restore services, while effective problem resolution requires more in-depth and time consuming investigation) (Bon, 2008)).

**Comparison to similar measures.** To my knowledge, there are no alternative measures that are directly comparable to the one described here, yet we may still consider measures that have been proposed for related constructs. At the individual level, functional conflict is similar to the concept of *role conflict*, as defined as in Rizzo et al. (1970), who emphasized that role conflict is due to incompatibility between different requirements or expectations toward a role. However, unlike the method proposed here, the questionnaire that they developed did not identify the actual requirements, but only captured respondents' own experience with relation to these requirements (e.g., "I work on under incompatible policies or guidelines"; "I operate with two or more groups who operate quite differently") (Rizzo, 1970, p. 156)) (similar items are also used in more recent studies (e.g., see Wong et al., 2007).)

Functional conflict also overlaps somewhat with *goal conflict or goal incongruity*. In a study of project managers, Levitt et al. (1999) developed a methodology for measuring the conflicts between project goals. They first asked project managers to list their goals (typical goals were: “Staying within budget”, “Striving for high task quality.” “Completing tasks on time”). Each participant was then asked to rank the importance of different goals related to their project in order of priority. The level of goal incongruity was calculated by summing the absolute differences between the different rankings made by the participants. Apart from the conceptual differences between the two constructs<sup>vii</sup>, this methodology differs from the one proposed here in that does not distinguish between function and structure: Goal conflicts are viewed as inherent in the goals themselves. The key assumption here is that functional conflict is due to an interdependency *between* the functions (ends) on the one hand, and the organizational structures or practices aimed at fulfilling the functions (the means) on the other (cf. Figure 1). Or, put differently, there are no inherent feature of the functions or goals *themselves* that make them conflict. Note in the example above (Figure 2a and 2b), that the wording of the functions is *identical* in both cases (with and without a functional conflict). The key assumption is thus that a redesign may, in principle, remove the functional conflict, without necessitating an adjustment of the functions themselves (Ackoff, 1999; Suh, 1990). Theories and measurement approaches that do not distinguish between function and structure will have difficulty accounting for this possibility.

## DISCUSSION

The operationalization and measurement of functional conflict may contribute to better theory development and testing, as well as to improvements in managerial practice, in particular, organization design and performance management processes.

**Implications for research.** In strategic management, the effects of diversification on firm performance has been one of the most important research topics for several decades. A particular area of focus has been the effects of related versus non-related diversification (i.e., expansion into either similar or dissimilar domains compared to the firm's current business or capabilities). Although it is expected that related diversification is superior to unrelated diversification, the substantial body of research that has been produced has not been conclusive (Shayne Gary, 2005). The main research strategy has been to measure the degree of relatedness between two business areas or firms, typically by asking managers to rate how different the two business areas or firms are with respect to customers, products, work processes, and the like (e.g., Pehrsson, 2006). However, from the functional perspective advanced in this paper, relatedness should not be considered in isolation, but compared to the opposing force of functional conflict. It may be the case that two business areas or firms that are highly related, as defined by strategy scholars, still represent conflicting functions (as in the example cited above of Bank of America and Merrill Lynch)(also see Shaver, 2006).

There is a similar implication for research related to broad versus focused business strategies (Huckman & Zinner, 2008). At the very least, functional conflict is a potential moderating variable that may influence the relationship between the degree of focus in business

strategies and firm performance. One may also go one step further and hypothesize that it is not the degree of focus per se that matters, but the presence or absence of functional conflict (between strategies and actions taken to implement the strategies). Based on this hypothesis, one would, contrary to current theorizing, expect to find that firms with broad strategies sometimes outperform firms with narrow strategies, as long as the firms with broad strategies are able to avoid functional conflict (e.g., the divisions or business areas within the firms should be able to realize their particular strategies without negatively affecting other divisions or business areas of the firms).

Finally, the concept of functional conflict suggests a need for modification of current theories of ambidexterity. Rather than defining ambidexterity as the ability to “do two different things simultaneously” (O'Reilly & Tushman, 2013, p. 15), it may be defined as the ability to reconcile two conflicting functions (e.g., by introducing innovations in organizational designs or management practices). Instead of simply categorizing practices as related to either one of the two goals (exploration or exploitation), researchers would have to ask managers to evaluate the extent to which different practices contribute to each of the goals.

**Implications for practice.** Tools for assessing functional conflict may be included in the diagnostic phase of organizational re-design processes. In a typical reorganization, one is searching for combinations of roles or sub-units that may benefit from being organized together (e.g., in the same business area) due to relatedness (e.g., due to common skills or work process interdependencies). However, although it is important to achieve such positive synergies, it is equally important to avoid functional conflict (e.g., by separating those sub-units that have mandates that conflict with each other). The modified design matrix (Table 3) is a tool that may

be used to illustrate positive as well as negative relationships between roles and sub-units, and thus provide a rationale for grouping decisions.

One should also modify strategy implementation and performance management processes. Typically, goals are formulated without an analysis for their interrelationships, or they are simply assumed to be mutually reinforcing. The “management by objectives” (MBO) system was criticized for precisely this reason, and Barton (1981) suggested the need for a new approach that he called “management by conflicting objectives” (MBCO). Unfortunately, it seems like the more modern Balanced Scorecard approach (Kaplan & Norton, 1996) suffers from the same weakness: It does include a tool called the Strategy map to visualize interrelationships between goals, but this tool is only supposed to show positive interrelationships. However, it should be possible to modify this tool and also add other tools (e.g., the design matrix shown in Table 2a and 2b) that can aid in the identification and evaluation of conflicting goals and KPIs.

The approach advocated here may also be relevant for other types of strategic decision making processes. Premature commitment to a specific solution, and the lack of attention to (multiple) requirements have been consistently shown to increase the probability of decision errors (Nutt, 2002). The methodology described in this article involves the explicit definition of functions (requirements) and the subsequent analysis of interrelationships between functions. One would expect that this method should improve the formulation of the decision problem in the initial stage of the process and lead to a more systematic evaluation of solution alternatives (cf. Baer et al., 2013; Nutt & Backoff, 1993).

**Directions for future research.** Future research may further refine the approach proposed here, and in particular, validate the measurement method that is suggested. It would of

interest, for example, to compare perceptual and objective data (cf. Starbuck & Mezias, 1996). Based on the existing literature, we would expect that one will find discrepancies. The literature on mergers and acquisitions suggests that managers tend to overestimate synergies and underestimate the existence of functional conflict. Yet as mentioned above, there may also be situations where managers overestimate the degree of functional conflict. One may study such assessments over time, and consider whether perceptual assessments of functional conflict at one point predict actual occurrence of functional conflict later. This may be relevant, for example, in a situation where two firms are considering merging, and managers make judgments of the degree of “synergy” between various aspects of their firms (cf. Shaver, 2006). After the merger has been completed and one has started integrating the two firms, one may collect objective data and compare to perceptual data collected before the merger.

At the firm and business unit level, the degree of functional conflict depends on the external market environment. If we return to the example of the professional services firm described above, we may assume that the key function for the audit business is to “maximize audit revenues” and that the key function for the consulting business is to “maximize consulting revenues”. These functions may not be in conflict when the market is still developing; as there are plenty of potential clients to market and sell to. However, the two functions may be in conflict as the market matures; then there will be fewer potential clients for the consulting business to approach that are not already clients of the audit business of the firm, and vice versa.

Another issue is the interaction between the “ambition level” implied by the functions and the degree of functional conflict. In psychological studies of individual level performance, one has investigated the degree of conflict between two performance goals (e.g., related to



quantity versus quality) in laboratory problem solving tasks. A key finding is that there is not necessarily a conflict between quantity and quality when subjects are assigned easy goals, but that there is a conflict when subjects are assigned difficult goals. One would expect a similar result at the organizational level: Most organizations, or sub-units, would be able to simply *perform* two functions at the same time (e.g., “manage quality” and “manage volume”). The functional conflict usually arises when the ambition level is increased and the functions are defined more stringently (e.g., “optimize quality” and “maximize volume”). Consequently, it is important to consider the best wording when interviewing managers or constructing a questionnaire: One may not detect a latent functional conflict if the functions are formulated as activities<sup>viii</sup>.

## CONCLUSION

Conflicting functional demands is a key concept that underlies much of the reasoning in both strategic management and organizational theory. Yet despite its importance, it has rarely been operationalized. Building on the work of Suh (2001) and Gresov & Drazin (1997), this paper has proposed a definition of the concept and a measurement method. If included in empirical research, functional conflict may serve as an independent variable or a moderator variable, depending on the hypothesis being tested, and allow more precise causal inferences. In management practice, it may contribute to improvements in organization design processes, and decision making more broadly, by helping managers minimize combinations of strategies or organizational units that are incompatible.



## FOOTNOTES

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<sup>i</sup> Other authors in this field have concluded that it is possible to combine the two generic strategies in some markets (see Hill, 1988 for a review).

<sup>ii</sup> Shaver (2006) used the term *contagion* to describe a similar phenomenon.

<sup>iii</sup> There are clearly exceptions, where violations of the single accountability principle does not lead to increasing role conflict (Rizzo, 1970), and today, there is a larger degree of tolerance for organizational designs that include distributed governance and joint accountability. Yet is still natural to expect that role conflict and role ambiguity are related to organizational size and complexity. We also know that the problem persists: A recent Gallup poll among employees in 550 companies showed that only about half of employees strongly agree that they know what is expected of them at work (Harter, 2015).

<sup>iv</sup> An important difference is that authors differ with regard to the possibility of reconciling conflicting demands or requirements. Authors within systems theory have proposed that managers can resolve conflicts by introducing organizational innovation (e.g., Ackoff, 1999). Authors within institutional theory are typically more pessimistic of this possibility (e.g., Oliver, 1991).

<sup>v</sup> Authors that use a system theoretic approach (e.g., Ackoff & Emery (1972), Suh (2001), and Gresov & Drazin (1997)) do make this distinction in their theorizing, but few empirical studies have been based on this approach.

<sup>vi</sup> The reasoning is that (initial) positive interaction between two functions can easily become negative. Nam Suh provided the following example: Suppose you want to heat a room and also provide illumination, i.e, two functional requirements. Someone proposed that we use the light

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bulbs to satisfy both, i.e., heating and illumination. One may argue that you can have more heating if you increase the illumination. Some may say that that is a good thing. But what would you do during the summer time. Turn lights off to lower the room temperature? (Nam Suh, personal communication, October 9, 2013).

<sup>vii</sup>The term *function* as defined here is typically semi-permanent and relates primarily to organizations, sub-units or roles, and not to individuals (although roles are obviously held by individuals). Goals may be assigned to ensure that the function (mandate, mission) of a unit is fulfilled. For example, the function of a sales department may be to maximize sales. The particular goal given to its manager may be to increase sales this year by 10%.

<sup>viii</sup> When developing a survey instrument, one may also consider asking respondents to estimate the probability of a functional conflict, instead of the existence of conflict or degree of conflict (cf. contagion paper). Thus, the generic form of such a question might be: “If you do X in order to maximize Function A, what do you think is the probability that this will have a negative effect on Function B?”

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