Product innovation charters: mission statements for new products

Christopher K. Bart

Michael G. DeGroote School of Business, McMaster University, Hamilton, Ontario, Canada, L8S-4M4
bartck@mcmaster.ca

This article presents findings from an exploratory study into the content and impact of product innovation charters (PICs) in 86 North American corporations. The findings demonstrate that managers have some distinct preferences in terms of the items that they choose to include in a PIC and that certain components seem to be more important to mention than others. The findings also make evident the relationship that PICs have with selected performance measures. The results suggest that product innovation charters, like their mission statement 'cousins', may be of more value than most managers realize.

In a pioneering article from 1980, Merle Crawford claimed to have identified a set of organizational policies, objectives, guidelines and restrictions which he considered essential to a firm's new product development activities. He called this set (which had never before been officially named) a firm's 'product innovation charter' or PIC (See Figures 1 and 2 for sample PICs).

The PIC was fundamentally described as an offshoot of a firm's strategic planning process. According to Crawford, formal strategic planning was (and, in 2001, still is) an important organizational process for the successful long-term health and management of every firm. But, the new product development function was seen as not getting the full benefit that formal strategic planning systems had to offer. Because of their multi-functional nature and environments, new products were being relegated to more informal 'back-of-the-envelope' planning processes. This, in turn, caused those multi-functional units engaged in new product development to lack the unity of purpose and direction enjoyed by traditional uni-functional departments.

The product innovation charter was, therefore, seen as providing an 'integrated, goals-oriented character' to a firm's product development process. Crawford then went on to describe a study in which he attempted (a) to identify and categorize the specific components of product innovation charters; and (b) to measure the degree to which firms were actually adopting their use. For the most part, though, Crawford has been content with simply being the original cartographer of the PIC landscape, suggesting its important major dimensions, and leaving it for others to explore and refine the concept. Yet, *21 years later*, there are still no empirically based guidelines on what constitutes 'best practice' in terms of how to operationalize a PIC. The purpose of the present study, therefore, was to describe some preliminary findings from an on-going research project concerning the content of PICs *in their entirety* within North American corporations. The consequences of including/excluding various PICs components on organizational performance were also explored.

PICs: a literature review

Definition and use

Crawford (1980) originally described PICs as having essentially three major dimensions (and a host of very specific components within each dimension). Those dimensions were: (1) the target business arenas (including: product type, end user activity, technology and

intermediate/end user group); (2) the goals or objectives of product innovation (including: both quantitative measures and special qualitative targets); and (3) the programme of activities selected to achieve the goals (including: strengths to exploit; weaknesses to avoid; sources of innovation; degree of innovativeness sought; and special conditions, restrictions or mandates.)

Seventeen years later, Crawford's (1997) characterization of PICs changed only slightly (e.g. 'target business arenas' were called 'focus'; 'goals and objectives' stayed the same; and, the 'programme of activities' became a much narrower (i.e., much less defined) set of 'guidelines' or 'rules of the road'). See Figure 1 for a sample PIC developed along these lines.

Cooper (1986b, 1993) – a recent Crawford Fellow – has suggested, however, that a firm's PIC should cut a much broader swath and is, perhaps, even synonymous with the concept of 'new product strategy':

> The key ingredient (in success with new products) is the new product strategy or *the product innovation charter* (PIC). The new product strategy charts the strategy for the firm's entire new product initiative. It is the master plan ...
>
> (1993, p. 287 – italics added).

According to Cooper, the PIC (as a master planning tool) is not just 'one stage' in a company's new product process, but rather an overarching construct that 'influences every stage of the new product process' (p. 287). In addition, Cooper's version of the PIC tends to focus more on 'entry method' – or the means by which a firm will move into strategic arenas (e.g. internal development, licensing, joint ventures and even acquisitions of other firms) (p. 317) – as opposed to Crawford's much more general 'guidelines'.

The concept and definition of PICs is, therefore, neither uniform nor unanimous as it is portrayed in the new product literature. There is uncertainty and doubt concerning the question of how to operationalize a PIC. And this must, indeed, be a source of both consternation and frustration for those managers looking for some definitive guidance on how to craft their firm's PIC. Perhaps, because of this, Cooper (1993) intimates that the usage of PICs does not appear to have progressed much over the years:

Corning Glass Works develops pyroceramin in the 1950s and up front homework looks into market opportunities. After winnowing these down, a kitchenware team is given the following charter.

Product innovation charter

Background

Women are entering the workforce in greater numbers, and are very stressed for time at home. The advent of frozen foods and other conveniences are changing the way people prepare and serve food. There is an opportunity for an attractive vessel that can go from the freezer to the stove top to the dinner table.

Focus

(a) Technology: Utilize the unique thermal properties of pyroceram. Use current glass product manufacturing technologies.
(b) Markets: Home makers in specified income bracket. Must also appeal to large retailers that will be used as channels. Benefit segment is characterized by those who value practical convenience and affordability, without compromising table appearance.

Goals and objectives

Cookware must be attractive and affordable. We intend to build a long-term market, so the sales objectives (specify) in early years will outweigh near term ROI on this launch. We should seek to launch, or be ready to follow up with, an entire line of cookware.

Guidelines

Use current distribution channels. The cookware should fit seamlessly into the kitchen environment (freezer space, stovetop limitation, cleaning, service at the table). Expect to incur large advertising expenditures (specify) to build awareness.

Figure 1. SAMPLE PIC (of what could have been).
Source: http://www.tmi.edu/ipd/New%20stuff/pic00.pdf

Black & Decker US power tools

Raise customer expectations and industry standards with respect to speed (reduced cycle time), improved quality and reduced costs ($/day). Integrate plans and resources. Improve the Product Development process. Maximize B&D preference time. Understand end user requirements and expectations. Personnel development.

3M

30% of products must be new within the last 4 years.

Bausch & Lomb global eyewear

To assure the timely and successful introduction of new products meeting and exceeding marketplace VOC (voice of the consumer) requirements.

Partial PIC for NewProd Corporation (disguised at the company's request)

The NewProd Corporation is dedicated to a program of new product development in metal fabricated sports equipment for the high-performance skiing, tennis and golfing markets. Our goals are to become the world market leader in all of our product categories (as measured by units sold); to maintain and build our reputation for outstanding quality and uniqueness; and to earn at least a 50% ROI from all new product activities. We will develop new products with the aim of being first to market and with superior offerings. R&D will be given resources commensurate with the projects approved and every effort will be expended to provide an environment in which talented scientists and engineers can feel appreciated, respected and rewarded for their contributions to the company's new product performance success. With our new products, we seek to be the envy of our competitors, the delight of our customers and the pride of our employees.

Figure 2. Examples of new product charters in practice.

> During discussions with managers, I found that the great majority either lacked a written product innovation strategy, or admitted to having only a superficial plan. Many firms did not even have quantifiable objectives for their new product initiatives. For example, managers often did not know key performance results of their new product efforts, and had to do considerable digging to answer questions on straightforward objectives-and-control gauges, such as percentage of sales by new products, or success, fail, and kill rates. (p. 294).

Cooper's comments, however, are anecdotal in nature. Accordingly, it would appear that some research which examined the content of PICs and demonstrated specifically how PICs were actually being operationalized by practising managers would be both highly desirable and warranted.

PICs and new product strategy research

Building on Cooper's approach to PICs, there are currently a large – and growing – number of articles discussing the nature, role and performance impact of various 'new product strategies' or 'product innovation strategies' (Booz, Allen and Hamilton, 1982; Calantone *et al*. 1995; Giffen and Page, 1996; Cooper, 1993; Montoya-Weiss and Calantone, 1994) as well as the *practices* associated with their success (Cooper, 1993; Montoya-Weiss and Calantone, 1994; Kuczmarski, 1992a,b, 1993, 1994). Unfortunately, most of the strategy studies have tended to focus only on certain PICs components (particularly, a new product's 'innovation source' or 'degree of innovativeness/newness to the firm/customer') and the performance impact resulting from variations within them. To their credit, they have demonstrated how the *choices* that managers make within the confines of one (or two) PIC variables can influence desired performance outcomes. Nevertheless, managers today still do not know exactly how to write a PIC – other than turning to Crawford's original treatise (or his latest book (1997)). The specific question of how most practitioners actually go about writing their PICs (and whether certain components should or should not be included) has never really been answered.

The mission connection

Despite the absence of empirical research on them, Crawford's depiction of PICs parallels another, more familiar (yet, macro-level) management concept called 'the mission statement'. We decided to use the recently emerging theory on the mission-performance relationship to frame and act as a model for our research on PICs (a *micro-level* organizational concept). The following sections present some of the recent research on mission statements. They also discuss the similarities between mission statements and PICs.

Mission vs. PIC components. In their most basic form, mission statements are formal written documents intended to capture an organization's unique (and overall) purpose and practices (Bart, 1996a,b, 1997a,b, 1998a,b, 1999, 2000; Bart and Baetz, 1998; Baetz and Bart, 1996; Campbell and Yeung, 1991; Campbell, 1993; Collins and Porras, 1994). A review of the mission literature suggests that there may be as many as 25 component parts making up a mission's content (Bart, 1997a,b). Coincidentally, almost all of the PIC dimensions cited by Crawford can be found in most recent commentaries describing the potential content of mission statements (Bart, 1997a,b, 1988a,b, 1999). Hence the similarity in concepts. Recently, it has also been demonstrated that not all mission statements are created equal and that some mission statement components may now be more important to include than others (*op. cit*.). The *relative* importance of various PIC components, however, has never been addressed and consequently still appears to be unknown.

Mission statement benefits and PICs. The importance of mission statements has long been recognized. As early as 1974, Peter Drucker was writing: 'That business purpose and business mission are so rarely given adequate thought is perhaps the most important single cause of business frustration and business failure.'

According to Bart and Baetz (1998), the major benefits in the historical strategy literature traditionally associated with *just simply having a mission statement* (i.e., without any consideration of the mission's specific content or quality) include: (1) providing more control over employee behaviour through increased motivation, unity of purpose and direction; and (2) a more focused resource allocation process. These benefits, in turn, have been viewed as leading to improved organizational performance.

Interestingly, many people still feel that mission statements are worthless (i.e. read any recent Dilbert cartoon). The current empirical evidence, however, does not support this view. In particular, there is a growing list of studies that now demonstrate the various linkages that exist between mission statements and selected performance measures (Pearce and David, 1987; Bart, 1996a,b, 1997a,b, 1998a,b, 1999; Bart and Baetz, 1998). In addition, the most recent study by Bart *et al*. (2001) has shown, using path analysis, that the contribution mission statements make towards firm performance is greatly influenced by a number of moderating variables including the rationale guiding a mission's creation, the mission's content, and the degree of mission-organizational alignment. Thus, mission statements on their own accord (and, as

extremely 'high-level' organizational drivers) appear to be important. And their capability to transform seems to be growing in acceptance.

To the extent that a PIC (*as a mission statement mutation – or, mission statement for new products*) provides direction and focus, it seems only natural that improved performance (financial or otherwise) should somehow result. Indeed, one historical article claims, albeit anecdotally, that improved new product speed-to-market will occur in those firms that have a clear new product mission (or, PIC) (Reinertsen and Smith, 1991). This is because firms with new product mission statements (i.e. PICs) eliminate new product ideas rapidly and thereby 'create space' for the more rapid development of those new products ultimately chosen. Unwanted new product projects are jettisoned quickly before they can consume valuable resources.

The performance benefits of PICs. Unfortunately, unlike mission statements, the direct empirical evidence regarding the performance benefits of PICs is extremely thin (Cooper, 1993, p. 292). Nevertheless, anecdotal and moral support for the concept appears to run high. Take, for example, Cooper's comments on the advantages of having a PIC:

> Running an innovation program without a PIC is like running a war without a military strategy. There's no rudder, there's no direction, and the results are often highly unsatisfactory. On occasion, such unplanned programs do succeed, largely owing to good luck.
>
> A new-product program without a PIC will inevitably lead to a number of ad hoc decisions made independently of one another. New-product and R&D projects will be initiated solely on their own merits and with little regard to their fit into the grander scheme. The result is that the firm finds itself in unrelated or unwanted markets, products and technologies: there is no focus (1993, p. 290) ... a product innovation charter is a must for all firms that are serious about building new products into their long-range plans.
>
> (1993, p. 325).

In addition to such enthusiastic endorsements, there is also some indirect evidence on the performance benefits of PICs taken from studies within the new product strategy literature of certain PIC components – especially, 'the method of entry' and 'degree of new product innovativeness'. It must be emphasized, though, that these studies have concentrated on the strategic choices that managers make *within* selected PIC components – rather than the PIC *taken as a whole* (or in its entirety).

For instance, Cooper (1984a,b; 1986a) has conducted one of the few studies to show how variations within 66 new product strategy variables (e.g. types of markets, products and technologies as represented by fit, synergy, market potential, lack of competition etc.) and their resultant combinations are both *directly and strongly linked* to a firm's performance results (measured on ten different scales). Thus, some new product strategies are more effective than others

Calantone *et al.* (1995) later refined this notion by demonstrating how some new product strategy *choices* – especially the nature and degree of new product innovativeness – were more strongly associated with certain performance measures than others. Giffen and Page (1996) further reinforced this view when they showed how the most appropriate measures for judging a new product's success were related to its 'project strategy' (as defined in terms of both Ansoff's newness to market/firm matrix and Miles' and Snow's categories of prospector, defender, analyser, and reactor). There appears, therefore, to be sufficient evidence from the 'new product strategy-performance' literature to suggest that similar relationships might exist when tested in the specific case of PICs – and all of their dimensions.

The research questions

Apart from Crawford's initial study, most of the previous research on new products (and new product strategies) has been done without *specific* reference to the existence of a product innovation charter per se. As a result, managers today would be hard pressed to know what exactly constitutes 'best practice' (or even most popular practice) with respect to their PICs. Indeed, should firms even have a PIC at all?

Fortunately, the historical mission statement literature has recently confirmed the usefulness that such documents have in terms of motivating employees and improving firm performance. It was, therefore, decided to address the empirical shortcomings of the PIC literature directly. A research project was launched to answer two specific questions: (1) How are practicing managers currently operationalizing their PICs? and (2) What categories of information should PICs include?

Research method

Sample selection and size

The current study involved a survey of 100 managers who claimed to be involved with their organization's new product development process. They were randomly selected from the roster of the Product Development and Management Association. The managers were originally contacted by phone and asked to participate in the study. All agreed – subject to reviewing the faxed questionnaire. A series of two follow-up phone calls produced a final response sample

of 86 completed questionnaires from the original survey.

Assessing non-response bias

Non-response bias was assessed by comparing early to late respondents as suggested by Armstrong and Overton (1977). These researchers have argued that late respondents are more representative of non-responders than early ones. Our results, using t-tests, indicated that there did not appear to be a significant non-response bias in our sample.

Sample respondents

A frequency analysis showed that the responses to the survey came from three different groups: senior management (i.e., CEOs and Vice-presidents (32.9%); directors (21.2%); and managers (45.9%). The views thus expressed by the respondents were those largely from a company's middle management (i.e., directors and managers of marketing or new products).

We were concerned, though, that the responses received might somehow be biased as a result of who was responding – and from what organizational level. We decided to test for this bias by performing a one-way analysis of variance for each of the study's 38 qualitative/perceptual variables based on the three types of respondents (the factor variable). A significant response difference (at the 0.05 level) was found for only one variable (i.e. 'avoiding regulatory problems). We concluded, based on this result, that there were insufficient numbers of differences among the answers of the respondents to warrant a concern of response bias.

Limitations

Given the small sample size and the method of sample selection, no claims as to the representativeness of the sample can be made. However, by North American standards, all of the firms surveyed would be considered: (a) 'above industry average' corporations in terms of growth (i.e., mean 'percent sales change' for sample (15.9%) vs. industry (6.9%); mean 'percent profit change' for sample (64.9%) vs. industry (6.3)); and (b) 'at industry average' in terms of profitability (i.e., ROS for sample (9.2%) vs. industry (10.7%); ROA for sample (13.1%) vs. industry (14.4%)).

Operationalizing PIC content and characteristics

The content and characteristics of product innovation charters were operationalized by reviewing both the prior mission statement and new product strategy literatures and combining those findings with the categorization scheme originally developed by Crawford. Thirty-five components were identified and are specified in Table 1. These 35 components comprise five major PIC categories: (1) the target business arenas; (2) the goals or objectives of product innovation; (3) the programme of activities selected to achieve the goals; (4) special conditions, restrictions or mandates; and (5) other possible PIC components based on the mission statement literature.

Measuring PIC content (i.e., component utilization and specificity)

Using the list of PIC content components identified in Table 1, a questionnaire was developed (and pre-tested with managers) which measured (a) whether those PIC components were present and, if so, (b) the degree to which they were clearly specified. The individual PIC components were measured by asking managers to indicate, on a three point scale, the degree to which each component was part of their firms' formal written policies (0 = not at all; 1 = somewhat specified; 2 = clearly specified). Cronbach's coefficient alpha for this PIC content scale was 0.94 – thereby indicating exceptionally high statistical reliability. Although it is recognized that *actual specification* of PIC components may vary significantly from managers' perceptions, exploring such differences has been left to another study.

Measures of PIC performance outcomes

There is little consensus between firms and academics as to which measures of new product performance are most useful for gauging success. A review and meta analysis of articles within the *Journal of Product Innovation Management* by Montoya-Weiss and Calantone (1995) reinforces this view with their conclusion that it is extremely hard for a firm to determine whether or not its new products are, in reality, successful. Also, according to Giffen and Page (1996), measuring success with respect to new products is problematic since there are a host of timing, sustainability and industry rank considerations that currently defy the use of a single performance indicator. They speculate that this is why most previous research uses multiple factors to explain or evaluate new product success – typically some combination of financial, consumer, and technical/process considerations. This research is no different.

To assess the relationship of a firm's PIC components (and their specificity) with performance, four outcome measures (utilizing the relationships established in the prior mission-performance literature) were used: one objective and three subjective/perceptual. The objective performance outcome measure was: percentage of current year sales resulting from new products introduced within the

last five years. It was selected on the basis of being one to which managers and researchers pay considerable attention.

In terms of the perceptual performance outcome measures, a series of 10-point scales were developed in which respondents were asked to indicate: (1) the degree to which they were satisfied (i.e., 0 = very dissatisfied; 9 = very satisfied) with their organizations' new product performance in all respects (i.e., number of new product 'winners', number of new products introduced, etc.); (2) the degree to which they perceived their firm's PIC as actually influencing the behaviours/actions of individuals throughout their organizations (i.e., 0 = not at all; 9 = to the greatest extent); and (3) the degree to which they were satisfied with their organizations' PIC (i.e., 0 = very dissatisfied; 9 = very satisfied).

To be sure, the perceptual performance measures developed for this research investigation are fairly broad. But as an initial, exploratory study, they are neither unusual nor inconsistent.

It should also be noted, though, that the correlation between actual new product sales (expressed as a percentage) and our measure of managers' satisfaction with perceived new product performance was 0.47 and significant at $p < 0.001$. Thus, the subjective measure of new product performance appears to be a good proxy for the actual percentage sales. In fact, it may even be more appropriate since managers typically take many factors into account other than 'straight numbers' when assessing performance such as, relative industry standing ('did we outperform the other firms in our industry') and time period comparisons ('did we do better than last year'); and, they instinctively control for extraneous variables when making their judgements (Souder, 1987; Bart, 1991).

Assessing common method variance

Based on the work of Blum *et al.* (1994), we examined for the presence of common method variance using a one-factor test. The results of this analysis indicated that a significant amount of common method variance did not appear to be present.

Data analysis

The frequency with which each PIC component was mentioned in the firms was tabulated, analysed using Kolmogorov-Smirnov tests and compared, wherever possible, to Crawford's earlier results. Using correlational analyses, we then compared the scores for each PIC component with our four performance outcome measures.

Findings and discussion

When Crawford completed his groundbreaking study, the phrase 'new product charters' had not yet been coined. So, it was not possible for him to ask whether firms had a grouping of policies specifically called by that name. We, of course, did not face this same problem. So, it was interesting that, in our survey, 76.8% of the respondents admitted to their firms having *some* formal policies with respect to managing new products (Crawford referred to these as 'partial charters'). However, only 29% of these respondents stated that their organization had a formal written document that was referred specifically to as a *product innovation charter*. These findings would suggest, therefore, that while the concept of product innovation charters (as defined by Crawford and this study) is, indeed, beginning to 'catch-on', the phrase itself is still not part of the management lexicon. The good news, though, is that companies appear to be embracing Crawford's notion of having some policies to guide their new product development activities in a more purposeful and co-ordinated fashion – particularly in light of the multi-functional nature of the activity.

PIC components and their frequencies

Table 1 shows, as a general observation, that most of the 35 PIC items investigated in this study were being used to a large extent. Twenty-one PIC items were specified to some degree or more in over 75% of the cases.

The twelve most popular PIC components (i.e. specified to some extent (or more) in over 85% of the cases) were: 'concern for customers', 'new product purpose', 'new product customers/markets', 'general new product goals', 'new product type', 'new product quality', 'concern for shareholders', 'distinctive competence/strength', 'statement of values', 'non-financial performance objectives', 'financial performance objectives' and 'type of end user activity'. However, when a particular PIC item was mentioned, it was much more likely to be specified only 'somewhat' as opposed to 'clearly'. Thirty-three out of the 35 PIC items were classified as 'somewhat specified' with frequencies of 30% or greater.

Interestingly, eleven PIC components were observed to be 'not mentioned at all' to a fairly high degree (i.e. in 30% or more of the respondents' answers). It is noteworthy, though, that the highest concentration of these 'no mention' PIC items occurred within the 'special conditions' category of Table 1 (section 'D').

What these findings suggest is that among firms which use full or partial PICs, there is generally a propensity to limit the degree to which new product policies are specified. Why this occurs is presently unknown and needs to be further explored in future research. It is intriguing, however, that new product policies and objectives – which have been described

Table 1. PIC components frequency and correlation analyses.

PIC components	Frequencies: PIC component not specified (0) % response	Frequencies: PIC component stated somewhat (1) % response	Frequencies: PIC component clearly specified (2) % response	Kolmogorov-Smirnov Test and Significance	PIC component's correlation with performance measures: New product sales as a % of current sales	Satisfaction with overall new product performance	PIC component influence on behaviour	Satisfaction with PIC	References: Prior mission statement literature support
(A) *The target business arenas:*									
● new product 'business definition'	21	51.6	27.4	2.07***	ns	0.35**	0.41**	0.45***	3, 4
● type of new products/new services	9.7	50	40.3	2.21***	ns	ns	0.46***	0.33**	5
● type of new product end-user activity	13.8	46.2	40	2.07***	ns	ns	0.38**	0.30*	
● nature of new product technology	21.5	55.4	23.1	2.24***	ns	ns	0.32**	ns	4, 5
● types of new product customers/markets	8.1	51.6	40.3	2.32***	ns	0.27*	ns	0.26*	5
(B1) *The goals or objectives of product innovation:* ● Quantitative									
● desired competitive position	21	41.9	37.1	1.83**	ns	ns	0.29*	0.28*	5
● financial performance objectives	12.9	45.2	41.9	2.12***	ns	0.27*	0.39**	0.35**	5, 6
(B2) ● Qualitative:									
● general new product goals	8.2	55.7	36.1	2.47***	−0.27*	ns	ns	0.27*	3, 5
● one clear and compelling new product goal	35.5	33.9	30.6	1.83**	ns	0.25*	0.32*	0.40**	5
● non-financial performance objectives	13.1	68.9	18	2.77***	ns	0.38**	0.35**	0.58 ***	3, 5
(C) *Programme of activities selected to achieve the goals:*									
● distinctive competence/strength	11.3	48.4	40.3	2.10***	ns	ns	0.34**	0.30*	4, 5
● organizational areas to avoid	62.7	27.1	10.2	2.96***	ns	0.29*	0.26*	0.30*	
● competitive strategy	17.7	50	32.3	2.05***	0.30*	0.29*	0.33**	0.43***	3, 4, 5
● new product self-concept/identity	38.7	46.8	14.5	1.97***	ns	ns	ns	0.42**	3, 5
● desired new product public image	26.6	48.4	25	1.94**	ns	0.28*	ns	0.39**	3, 4, 5
(D) *Special conditions, restrictions or mandates:*									
● new product quality level to be protected and/or improved	10.8	55.4	33.8	2.45***	ns	0.22**	ns	0.44***	
● level of acceptable new product risk	34.4	53.1	12.5	2.3***	ns	ns	ns	0.35**	
● concern for serving only 'real' or 'genuine' needs	20.3	56.3	23.4	2.27***	ns	ns	ns	0.37**	
● concern for seeking low volume niches for 'quiet intrusions'	60	35.4	4.6	3.03***	ns	ns	ns	ns	

(*continued*)

Table1. *Continued*

PIC components	Frequencies			Kolmogorov-Smirnov Test and Significance	PIC component's correlation with performance measures				References
	PIC component not specified (0) % response	PIC component stated somewhat (1) % response	PIC component clearly specified (2) % response		New product sales as a % of current sales	Satisfaction with overall new product performance	PIC component influence on behaviour	Satisfaction with PIC	Prior mission statement literature support
● avoiding particular competitors	55.4	33.8	10.8	2.77***	ns	ns	ns	ns	
● acceptable rate of growth	38.5	50.8	10.8	2.26***	ns	ns	ns	0.26*	
● attitude toward 'low cost, repeat buying' product categories	46.9	37.5	15.6	2.36***	ns	ns	ns	ns	
● concern for avoiding regulatory or social problems	20.3	35.9	43.8	2.22***	ns	ns	ns	0.42**	
● concern for new product patent ability	32.3	33.8	33.8	1.80**	ns	ns	ns	0.28*	
(E) *Other PIC components based on the mission statement literature:*									
● statement of purpose	4.8	56.5	38.7	2.65***	ns	ns	ns	0.31*	3, 4, 5, 6
● statement of values	12.9	46.8	40.3	2.05***	ns	0.36**	0.32*	0.53***	3, 4, 5, 6
● relevant stakeholders identified	24.2	51.6	24.2	2.03***	ns	ns	0.35**	0.52***	3
● specific new product behaviour standards	25.8	45.2	29	1.79**	ns	ns	0.27*	0.39**	1, 2, 4, 5
● identification of new product location	27	39.7	33.3	1.73**	ns	ns	ns	0.30*	
● concern for satisfying customers	3.1	43.1	53.8	2.80***	ns	ns	ns	0.28*	3, 5
● concern for employees	23.1	47.7	29.2	1.95**	ns	ns	ns	0.41**	3, 4, 5
● concern for suppliers	37.5	48.4	14.1	2.07***	ns	0.38**	ns	0.33**	3, 4
● concern for society	32.8	29.7	37.5	1.97***	ns	ns	ns	0.30*	3, 5
● concern for shareholders	11.1	50.8	38.1	2.22***	ns	ns	ns	ns	3, 4, 5
● statement of new product vision	16.9	55.4	27.7	2.32***	ns	ns	ns	0.28*	3, 5

Legend: * $p < 0.05$ significance (two tail significance)
** $p < 0.01$ significance
*** $p < 0.001$ significance
References: (1) Bart, 1996a; (2) Bart, 1996b; (3) Bart, 1997a; (4) Bart, 1997b; (5) Bart, 1999; (6) Bart and Baetz, 1998

(both in theory and practice) as being responsible for guiding the actions and behaviours of multi-functional members – should be left so loose. Three possible explanations for this appear to exist.

The first is that 'loosely specified' new product policies create the organizational context in which employees are given the necessary freedom to be creative and to put their own imprimatur on the new product process. They have the discretion to make decisions – but only *within acceptable boundaries*. This approach is often called 'empowerment' (Peters and Waterman (1986) referred to it as creating 'loose-tight controls') and it can be very motivating for those participating in the new product process.

However, a second explanation for limited and loose new product policies may simply be that senior management does not know itself what exactly those policies should be in the first place. While senior managers recognize the necessity for having some policies, they are so hesitant and unsure as to what the firm's ultimate decisions should be that they are unwilling to commit (in the form of 'clearly specified' policies) with boldness and conviction. Their challenge, then, becomes one of fostering, finding and executing a successful 'emergent strategy'. And their resultant risk is a loss of *focus*.

Finally, a third reason for firms going only half-way with their specification of new product policies is that the managers just don't understand the necessity for (or see the benefits in) providing more clearly specified policies. The following discussion concerning the impact of PICs with respect to performance outcomes, however, sheds additional light on this issue.

PICs and performance

Do PICs matter? The correlation analysis in Table 1 shows that, with only four exceptions (i.e., 'concern for low volume niches', 'avoiding particular competitors', 'attitude toward low cost, repeat buying product categories' and 'concern for shareholders'), each of the PIC components (and the degree to which they were specified) was significantly and positively correlated with at least one of the four performance measures. Thus, as a general observation, it appears that PICs do, in fact, matter when it comes to firm performance.

Do some PIC components matter more than others? Seven of the PIC components, however, were found to be fairly robust and broad-ranging in terms of their relationship with our performance measures. They were: business definition, specific financial targets, one compelling goal, specific non-financial performance objectives, areas to avoid, competitive strategy, and statement of values. Each was significantly – and positively – correlated with at least three performance measures – and one component (i.e. competitive strategy) correlated significantly with the all. It would seem, then, that some PIC components do, in truth, matter more than others. And, given their broad applicability, they could certainly be viewed as a good preliminary list of items to consider when either creating a new PIC or revising an existing one.

It was also interesting to note that, with the exception of 'areas to avoid', support for these seven PIC-performance relationships could be found in the prior mission statement literature (see Table 1, last column). These similarities in findings suggest, therefore, that a product innovation charter may indeed be a 'mission statement mutation' adapted to the micro level i.e., to a firm's new product activities

One point of departure from most of the previous mission studies, however, concerns the relationship found here between the PIC category 'specification of financial objectives' and our performance measures. There is a growing consensus that most successful mission statements avoid mentioning financial targets (Bart and Baetz, 1998) because they have a tendency to represent a mental 'turn-off' for employees. Bart (1998a), however, recently observed that the missions of highly innovative organizations had significantly more financial targets in their statements than non-innovative organizations. He offered the following explanation for this:

> Clearly articulating and understanding the financial results which will define success or failure is ... especially important for: (a) selecting which projects to move forward; and (b) administering rewards – particularly where initial losses are expected to be high – or where, as one manager put it: 'I need to know how much money I can lose in the first year before I am in trouble!' Non-innovative firms, unfortunately, do not appear to provide this guidance and, again, suffer the consequences.
>
> (p. 71).

Given that PICs focus specifically on new products and services (more than mission statements do), the same arguments could be used to support or justify the inclusion of financial objectives – if not even more strongly so.

PIC frequencies vs. correlations. When the performance correlations of Table 1 were compared to our earlier frequency analysis results, it was interesting to observe that only three of the 12 very high frequency PIC components (i.e., 'statement of values', 'non-financial performance objectives, and 'financial performance objectives') were among those found to have a comprehensive relationship with performance. None of the other very high frequency PIC items from Table 1 was found to have as strong a relationship. At the same time, the PIC item which received the highest score in Table 1 for 'no mention' (i.e., 'organizational

areas to avoid') was also one of the components identified as having one of the more pervasive relationships with performance.

A major recommendation stemming from these observations, therefore, is that managers should be wary about 'following the crowd' when it comes to designing their PICs or benchmarking PIC practices. Just because something is popular is no guarantee that it is right. Moreover, as a result of our analysis, we are now more aware of several instances in which some 'lower use' PIC items appear to have greater value than previously imagined.

PIC content-performance patterns. It was also fascinating to observe how some of the performance measures in our study seemed to have a more pervasive relationship with various PIC components than others. In particular, different patterns (and quantities) of PIC components appeared to be associated with each measure. The most extensive correlations occurred in the case of our three subjective measures (i.e., 'satisfaction with the firm's PIC' achieved 30 significant and positive correlations; followed by 'PIC influence on behaviour' with 14; and 'satisfaction with new product performance' with 11). Our only objective performance measure (i.e., 'new product sales percent') obtained the least number of correlations with only two.

These observations prompt two possible conclusions – and future research propositions. The first is that different combinations of PIC items may be associated with achieving specific performance outcomes. To the extent that this is true, managers need to be advised to take their desired 'end results' into account when contemplating the content of their PICs. However, as our previous discussion argued, not all PIC components are created equal. An examination of the individual correlations within each performance pattern revealed (and reinforced the view) that some PIC components appear to be more effective than others in terms of achieving the outcomes sought. Take the case of increasing 'satisfaction with the PIC'. The PIC components of 'non-financial performance objectives', 'values' and 'relevant stakeholders' garnered the three highest correlations with this performance outcome and, thus, appeared to be the 'items of choice' (while the others seemed less effective and/or less efficient.) In a similar fashion, different combinations of PIC components were observed to occur among the top three correlations for the other performance measures.

The implication stemming from these observations is, once again, that managers need to be strategic when it comes to the selection of their PIC components. To the extent that they do not want to incorporate all of the possible PIC items associated with achieving a particular performance outcome, they should, as a minimum, ensure that those components identified as having the maximum effect are included.

A second conclusion resulting from the observed patterns of PIC components and performance measures is that the *direct* impact of PICs on firm performance appears to be more behavioural and perceptual than financial. This conclusion, however, is not meant to downplay or deny the impact that we believe a PIC has on financial performance. Instead, we contend that our findings support the view that the relationship between PICs and 'financial measures of new product success' is much more *indirect* than previously supposed. In some related research, Bart *et al.* (2001) concluded that to understand the relationship between mission statements and financial performance, it is necessary to consider such statements (and their component parts) in light of many related, intermediary variables. The findings from the current research would suggest that the same also probably holds true for PICs – though this has yet to be proven. Nevertheless, it represents an intriguing – and recommended – topic for future research.

Aggregate PIC components and performance. Notwithstanding the need to be selective in the choice of PIC components, there still remains the question of how much information should be contained in a PIC. Our previous analysis established that there are indeed performance benefits to be attained from the inclusion – and high specification – of selected PIC components. But, what happens when the number of individual components included in a PIC increases – especially when taking into account each component's associated level of specification? Can one include too many (or too few) items in a PIC?

To address this issue, we summed the individual PIC component scores (but excluded the 'situational items' in section 'D') for every firm and then correlated these 'aggregated scores' with each of the four performance measures. The results showed that that for two of the performance measures (i.e. 'satisfaction with the PIC' and 'satisfaction with new product performance'), there were clearly additional benefits to be derived from the inclusion (and specification) of high quantities of individual components within their PICs. In particular, the aggregated PIC scores for these two performance measures were found to produce the strongest correlations i.e. the correlation between the PIC's aggregated scores and 'satisfaction with the PIC' was calculated to be 0.59 ($p = 0.001$); and the correlation between the aggregated PIC scores and 'satisfaction with new product performance' was established to be 0.43 ($p = 0.01$). There were no correlations among the individual PIC components that were found to be higher within their respective performance categories. Thus, *when it comes to these particular performance outcomes*, managers appear to appreciate and respond positively to those PICs that are clearly explained and in sufficient detail.

Interestingly, these observations now also offer some resolution to an earlier stated concern. Recall that the frequency analysis (presented in Table 1) found that most new product policies were only specified 'somewhat'. This raised the question as to whether such vagueness was deliberate – in order to encourage greater creativity and flexibility – or whether firms were simply not aware of the benefits associated with being highly specific in their policies. The answer to this question (based on the analysis presented in this section) now looks relatively clear: high performance (both in perceived market achievement and satisfaction with the PIC) appears to be associated with *both* crisply defined and high quantities of new product policies.

It was remarkable, however, to find that large numbers of companies exist (as in this sample) which still did not understand the fundamental and important principle of human motivation underlying – and driving – our findings here: that clarity of direction and expression begets the satisfaction and commitment which leads, initially, to behavioural change (Bart *et al*., 2001) and, ultimately, to improved performance (Bart, 1996a, 1997; Bart *et al*., 2001). Consequently, we contend that those managers who do not understand the implications of our findings (i.e. who fail to institute sufficient amounts of new product 'policies, objectives, guidelines and restrictions' that are 'clearly specified') may see their firms pay a huge price in terms of lacklustre performance. And while managers may often criticize the amount of items embodied in their organizations' PICs, it now seems that such complaints may have just as much to do with the poor quality of the items included – especially their vagueness or lack of specification – as with the quantity. It is also noteworthy that our findings and conclusions appear to be consistent with the growing body of research from the control literature which argues that high levels of organizational controls may actually be a necessary condition for high levels of new product success (Bart, 1991, 1993a,b, 1994).

At the same time, though, our analysis of the correlations between the aggregated PIC component scores and the two other performance measures (i.e. influence on behaviour and new product sales percent) demonstrated that including vast quantities of information within a PIC does not always yield superior results. For instance, though the correlation between the PICs' aggregate scores and our measure of 'PIC influence on behaviour' was 0.43 – and significant ($p = 0.01$) – it was not the highest for that particular performance outcome. Moreover, the aggregate PIC scores' correlation with 'new product sales percent' was not even significant. Thus, when all of these observations are taken into account, they prompt us to conclude that for certain outcome measures, the inclusion and specification of additional PIC components does sometimes, indeed, enhance performance (i.e. there can be greater satisfaction among organizational members with respect to their firms' PICs and greater satisfaction regarding their firm's new product performance) – but, not necessarily for all performance outcomes. It will, thus, be the responsibility of future research to identify and categorize which other performance outcomes benefit (or not) from high levels of PIC detail and specification.

Some final thoughts

Since Crawford's pioneering article, there have been very few guidelines offered on how to construct the content of PICs. Hopefully, the current research results have taken our understanding of Crawford's initial ideas to a new level of understanding. The findings have suggested that there are clear areas of preference on the part of managers with respect to the components and categories making up a PIC. As a result, we now have some empirical evidence on the way in which PICs are actually being used. We also have a better understanding of the relationship that PICs have with various performance outcomes. Managers should, therefore, consider the findings of this article carefully when next reviewing – or creating – their firms' product innovation charter.

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