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NPV-Relevant Product Description and B2B Marketing Contribution to Value Creation

Ryszard Kłeczek[1]

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Abstract

Purpose: The aim of this study is to answer the following question: what concepts should be used to explain how marketing contributes to value creation in business-to-business (B2B) relations?

Methodology: The method consists of: (1) using net present value (NPV) as a goal of B2B purchasing decisions and (2) analysing the supplier's controlling system to differentiate between value drivers and value causes.

Findings: A conceptual framework of B2B value creation has been proposed. NPV-related product description is the main concept in the framework.

Originality: The study contributes to the B2B marketing theory by increasing the clarity of conceptual foundations by (1) proposing the NPV-relevant product description and (2) making a distinction between value drivers and causes of value.

Keywords: value creation, value drivers, B2B marketing, NPV-relevant product description

JEL: M31, M37

1 Wroclaw University of Economics
Correspondence address: Wroclaw University of Economics, Komandorska 118/120 St., 53-345 Wroclaw, e-mail: ryszard.kleczek@ue.wroc.pl.

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Introduction

There is a general agreement among marketing researchers that expected value is an essential concept in explaining business-to-business (B2B) seller-buyer relations (Eggert, Ulaga and Schultz, 2006; Walter, Ritter and Gemunden, 2001; Ulaga and Eggert, 2002, 2006; Ryssel, Ritter and Gemunden, 2004; Payne and Holt, 2001), but it is unclear what the value is.

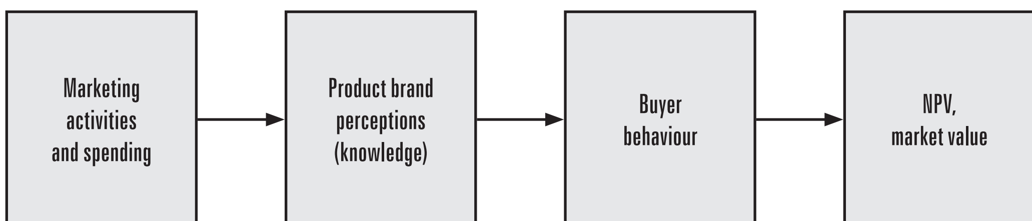
The following sections present an attempt to adapt this model to B2B conditions by: (1) showing the specificity of B2B purchasing decisions; (2) using the concept of net present value (NPV) as an equivalent to value; (3) introducing the concept of NPV-relevant product description; (4) differentiating between value drivers and value causes; and (5) constructing a B2B marketing productivity model and proposing relevant hypotheses that can guide the empirical research.

Contribution of marketing to business value creation: conceptual framework

There are two famous conceptual frameworks (Srivastava, Shervani and Fahey, 1998; Rust, Ambler, Carpenter, Kumar and Srivastava, 2004) concerning the manner in which marketing creates value. These frameworks, summarised in the marketing productivity model (Figure 1), suggest that three problems should be investigated in explaining how marketing creates value: (1) how marketing activities influence product brand perceptions (brand knowledge, awareness and image); (2) how product brand perceptions influence buyer behaviour; and (3) how buyer behaviour influences supplier's net present value (NPV) or market value.

The authors of both frameworks use Keller's (1993) definition of consumer-based brand equity (i.e. the differential effect of brand knowledge on consumer response to marketing of the product brand) to explain how marketing creates value. For the model, it means that (1) product brand knowledge and buyer behaviour are intermediate elements in the value creation process and (2) a change in the brand knowledge can change the buyer's behaviour.

Figure 1 | **General marketing productivity model**



Source: author's own work.

B2B purchasing decisions and NPV-relevant product description

In the B2B market, both supplier (when offering their product brands) and the buyer (when choosing among alternative brands) aim at increasing their own NPVs. Consequently, the buyer should expect an NPV-relevant product description from the supplier, i.e. the description of how the offered brand influences buyer NPV in comparison with alternative available brands. NPV-relevant product description informs the buyer about the supplier's competitive advantage. The offer's influence on the buyer's business NPV is a base for creating and continuing the seller-buyer relationship. The B2B buyer continues to deepen the relationship as long as anticipated NPV benefits from the offer exceed the anticipated spending.

There is general agreement among marketing researchers that expected value is an essential concept in explaining B2B seller-buyer relations (Eggert, Ulaga and Schultz, 2006; Walter, Ritter and Gemunden, 2001; Ulaga and Eggert, 2002, 2006; Ryssel, Ritter and Gemunden, 2004; Payne and Holt, 2001), but it is unclear what the value is. In this section, the net present value (NPV) is used as an equivalent to the value.

Table 1 presents the B2B buyer's purchasing problem: which of two alternative (competing) offers – A1 from supplier A (price 15$) or B1 form supplier B (price 10$) – will contribute to a higher buyer's business NPV when purchased? The simplest, short-term answer is: the lower price offer (B1, 10$) should be chosen, as the lower price results in a lower short-term increase (in comparison with A1) in the buyer's fixed costs (from 30,000$ to 30,010$ when bought in t1) and in a lower decrease in the cash flow (CF, from 29,180$ to 29,170$) at the same time. Alternatively, choosing the B1 offer providing for the higher purchase price (15$) will result in a higher short-term increase in the fixed costs (from 30,000$ to 30,015$) when bought in (t1) and a higher decrease in the cash flow (CF, from 29,180$ to 29,165$) and finally in a higher decrease in NPV.

The only way to persuade the B2B buyer to purchase the A1 offer for $15 is to present its better long-term (t1-t4) influence on the buyer's business NPV in comparison with the B1 offer. When, for instance, A1 requires maintenance cost of $1 per period, while B1 is $5 per period, purchasing A1 results in an increase in the buyer's business fixed cost by $19 ($15 + $1 in t1 +$1 in t2 + $1 in t3 +$1 in t4) in comparison with $30 in the case of B1 ($10 + $5 in t1 + $5 in t2 + $5 in t3 $5 in t4) and relevant reductions in cash. Such a presentation of A1 displays the offer's impact on the long-term operating profit margin of the buyer's business in comparison with B1. Such a presentation justifies the higher price of A1. The higher price ($15) of A1 is presented as investment spending for the buyer's business, which brings a higher return for the buyer's business than when paying the lower price ($10) for B1.

The offer presentation that describes the long-term impact on the buyer's business NPV in comparison with alternative offers will be referred to as the NPV-relevant product description.

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Table 1 | B2B buyer's purchasing problem

		t0	t1	t2	t3	t4
	Sales (000$)		170	170	170	170
	Variable costs		102	102	102	102
	Contribution margin		68	68	68	68
	Fixed costs		30	30	30	30
Supplier A, offer A1, $15	Amortization		10	10	10	10
	Operating profit before tax (000$)		28	28	28	28
	Tax (19%)		5.32	5.32	5.32	5.32
Supplier B, offer B1, $10	Operating profit after tax (000$)		22.68	22.68	22.68	22.68
	+Amortization		10.00	10.00	10.00	10.00
	- Working capital (000$)		3.50	3.50	3.50	3.50
	CF (000$)		29.18	29.18	29.18	29.18
	DCF (10%)		26.53	24.12	21.92	19.93
	Cumulated DCF (000$)		26.53	50.64	72.57	92.50
	- Initial spending (000$)	50.00				
	NPV (000$)	42.50				

Source: author's own work.

Presentations of this type describe how a particular offer influences financial value drivers (Rappaport, 1986) of the buyer's business: (1) extended period of the buyer's business capacity to generate cash above cost of capital; (2) increased pace of the buyer's business sales growth; (3) increased operating profit margin; (4) improved relations between operating profit and cash frozen in accounts receivable and inventory; (5) increased relation between operating profit and cash frozen in fixed assets; (6) reduced cost of capital (reduced cost of financing of inventory and accounts receivable); and (7) increased buyer's capacity to develop subsequent business unit(s).

NPV-relevant product brand descriptions should contain statements: (1) referring to the buyer's business financial value drivers, such as: "our product brand … extends our buyer's products value creation period by …", "our product brand … reduces the buyer's operating costs of … by …, so the buyer's operating profit margin increases", "the product brand … improves the turnover of the buyer's accounts receivable/inventory by …" (increasing the effectiveness of the buyer's working capital investment); or (2) referring to non-financial value drivers: "the product brand … reduces the buyer's lead time by …", "the product brand … reduces the buyer's floor space required to … by …", "the product brand … increases the buyer's speed of operations by …", "the product brand … decreases the buyer's risk of … by … ."

Table 2 presents how the same product (a micro-pump for a commercial lab) can be described with the use of NPV-relevant terms to a smaller or greater extent. In the first row of Table 2, the product is described with a focus on its long-term influence on buyer value drivers and NPV. This is the NPV-relevant product description informing about how the pump influences two financial value drivers of buyer's business: sales ($800 of additional revenue) and operating profit margin (operating cost reduction by $500. In the second row, the same product is described with a focus on its influence on the buyer's non-financial value drivers. In the third row, the same product is described without focusing on value drivers (this is the NPV-irrelevant product description).

Table 2 | **Focus on value drivers in B2B product descriptions**

Alternative descriptions of the same product: a micro-pump for a commercial laboratory	Focus on value drivers in the description
Product described with focus on its influence on the buyer's non-financial and financial value drivers and NPV: *Modular design. Non-modular pumps require 0.5 h for cleaning. Modular design allows cleaning in less than 1 minute. Total monthly cleaning time reduced = 25 h, so: (1) Additional 4 lab tests possible (8 h each), additional revenue $800 ($200 each) and maintenance/service cost reduction by 500 (25 h x $20 labour cost for pump cleaning).*	Maximum focus
Product described with focus on its influence on the buyer's non-financial value drivers: *Modular design. Non-modular pumps require 0.5 h for cleaning. Modular design allows cleaning in less than 1 minute.*	Focus on non-financial value drivers only
Products described by technical parameters only: *Modular design.*	No focus

Source: author's own work.

The modular pump presented in Table 2 is an innovation in comparison with the non-modular one. Innovation is any product that influences the buyer's business NPV better than another solution and can be described with a focus on the buyer's business NPV influence. Such a description presents its competitive advantage and creates the buyer-seller relation. The terms traditionally used in marketing literature to describe innovations, like "proactive" or "reactive", "radical" or "incremental" (Hunt, 2013), are less important in explaining how innovations drive business development.

The supplier's competences in making products, when presented together with the product description, exert a positive influence on the buyer's purchasing decisions (Dacin and Brown, 1997). In B2B relations, when supplier competences are to influence B2B buyer decisions, they should be done also in terms of long-term influence on buyer business NPV (for instance, "our company has technology X that makes all our products save energy and reduce operating costs of our business buyers").

The supplier's product and selling strategies that fulfil the criterion of NPV-relevant descriptions should be preferred over the strategies that do not (Anderson, Kumar and Narus, 2007).

NPV-relevant descriptions present the product as an investment for the buyer's business and are able to influence their behaviour by: (1) making their purchasing decision quicker; (2) buying

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more; (3) buying regularly; (4) paying a higher price; and (5) paying in a shorter time. Such behaviour may be called NPV-relevant buyer behaviour.

Antecedents of NPV-relevant product description

Table 3 shows an analysis of how the employees (salespeople and managers of strategic business units) of a particular supplier contribute to its value creation. This analysis helps in understanding the antecedents of NPV-relevant offer description.

Table 3 | How employees of a particular B2B supplier contribute to its value creation

New products marketed/ New product projects	1/3		
	Total	Salesperson 1	Salesperson 2
Buyers	400	200	200
Active buyers	232	116	116
Active buyers/Buyers	58%	58%	58%
Sales visits	2,100	1,100	1,000
Contracts	630	330	300
Contracts/sales visits	30%	30%	30%
Average contract size ($)	1,544	1,424	1,677
Sales ($)	973,000	470,000	503,000
Cost of Goods Sold ($)	778,400	376,000	402,400
Gross profit ($)	194,600	94,000	100,600
Gross profit/Sales	20%	20%	20%
Direct sales costs ($)	149,000	89,000	60,000
Direct sales costs/Sales	15.31%	18.94%	11.93%
Profit contribution 1 ($)	45,600	5,000	40,600
Profit contribution 1/sales	4.69%	1.06%	8.07%
Accounts receivable ($)	100,000	55,000	45,000
Costs of accounts receivable ($)	10,000	5,500	4,500
Profit contribution 2 ($)	35,600	-500	36,100
Inventory ($)	200,000		
Costs of inventory ($)	28,000		
Profit contribution 3 ($)	17,600		
New product projects ($)	10,000		
Profit contribution 4 ($)	7,600		

Source: author's own work.

In Table 3, salespersons 1 and 2 (when visiting 200 buyers each, presenting the supplier's offer and obtaining 330 and 300 contracts, respectively) contributed $35,600 (minus $500 and $36,100 respectively) to the supplier's NPV. If the profit contribution 2 creates a base for their motivational system (internal "rules of the game"), they are interested in obtaining contracts (thus increasing sales) at higher prices (to increase the gross profit/sales ratio, 20% currently) and improve two relations: (1) relation between sales and accounts receivable (turnover of accounts receivable) and (2) relation between the costs of accounts receivable and sales. If the profit contribution 2 creates a base for their motivational system, the salespeople are interested in presenting their offer with a focus on its influence on the buyer's business NPV. They would not be interested in such presentations when their motivational system would be based on sales (provisions on sales $470,000 and $503,000, respectively). This is because under such a motivational system, they could increase their earnings (provisions) by increasing sales when offering lower prices (reducing gross profit/sales ratio) and prolonging payment time-limits for their clients (decreasing the relation between sales and accounts receivable and increasing costs of accounts receivable), thus decreasing profit contribution 2 and consequently the supplier's NPV. Salespeople are more interested in developing and delivering NPV-relevant offer descriptions when their motivation system is more NPV-oriented (profit contribution 2 is more NPV-oriented than sales).

The fourth and the sixth row of Table 3 include sales department non-financial value drivers: (1) number of sales visits, and (2) relation between the number of contracts and the number of sales visits. When the values of the measures increase, an increase in profit contribution 2 can be expected.

The number of sales visits (1,100 and 1,000, respectively) and the relation between contracts and sales visits (30% both) are two sales department value drivers; when values of the measures increase, an increase in sales and profit contribution can be expected. Value drivers are not the real causes of an NPV increase. The real cause of the increased number of sales visits is the amount of time available for salespeople for the visits. The real cause of the relation between contracts and sales visits (30% both) is the degree to which the offer sold is described in NPV-relevant terms, and consequently the salesperson's skills in translating the technical parameters of products into an NPV-relevant offer description.

The profit contribution 2 ($35,600) in Table 3 is under long-term influence of the manager of the whole strategic business unit (SBU). The SBU manager is responsible for the product portfolio sold by salespeople, especially for new products marketed. Table 3 shows that the SBU manager has implemented three new product projects (NP projects) that cost $10,000 and has marketed one new product (New products marketed/ New product projects = 1/3) in reported period. When the new product can be described in NPV-relevant terms, it will help salespeople to generate NPV-relevant buyer behaviour: (1) paying a higher price (increasing gross profit/sales ratio above 20%) and (2) paying more quickly (decreasing sales/accounts receivable and financial costs/sales ratios). When the new product cannot be described in NPV-relevant terms or is not marketed at all (New products marketed/ New product projects = 0/3), the salespeople find it more difficult

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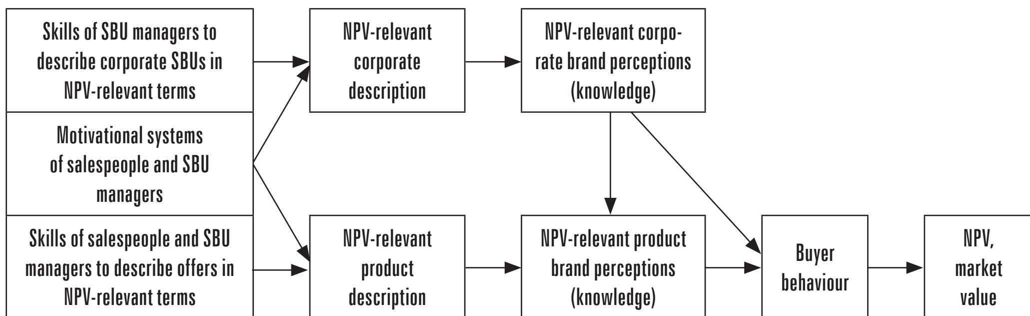
to generate NPV-relevant buyer behaviour. The SBU manager's motivation system based on profit contribution 4 increases the ability to develop and deliver NPV-related offer descriptions.

In summary, innovative products, the ability to develop and deliver NPV-related offer descriptions and motivation systems in enterprises (internal "rules of the game") infl uence the manner in which salespeople and SBU managers contribute to their own enterprise's NPV.

B2B marketing productivity conceptual framework

In this section, a B2B marketing productivity conceptual framework will be constructed that uses NPV-relevant product description as the key concept (Figure 2). The idea behind this framework is that the NPV-relevant content of the marketing actions (product descriptions) explains (through brand perception and buyer behaviour as intermediate elements) the supplier's value creation. Such content can be controlled, managed and communicated to target groups of buyers.

Figure 2 | **B2B marketing productivity conceptual framework**



Source: author's own work.

The framework proposes the following hypotheses about value creation in B2B markets:

> H1: NPV-relevant product description influences product brand knowledge, buyer behaviour and finally the supplier's NPV and market value.
>
> H2: NPV-relevant corporate description influences buyer behaviour (directly or via product brand knowledge) and finally the supplier's NPV and market value.
>
> H3: Motivation systems of SBU managers and salespeople and their skills in translating technical parameters of their offers into NPV-relevant elements (non-financial and financial value drivers) influence the degree to which their offers are described in NPV-relevant terms.
>
> H4: Motivation systems of SBU managers and their skills in translating technical parameters of their offers into NPV-relevant elements (non-financial and financial value drivers) influence the degree to which their corporations are described in NPV-relevant terms.

There are some elements of the method that should be taken into consideration when investigating the above propositions:

(1) Content analysis (along with the principles suggested by Fico, Lacy and Riffe, 2008) should be used in the investigations of both B2B product brand and corporate descriptions. The goal of such an analysis is to detect the degree of use of both non-financial and financial value drivers in the descriptions.

(2) Measurement and analysis of both product and corporate perceptions should be focused on how the purchase decision-makers perceive influence of the offer in question on their enterprise's non-financial and financial value drivers (measurement and analysis of typical business-to-consumer (B2C) concepts). For instance "personality of the offer" is irrelevant in B2B research.

(3) NPV-relevant buyer behaviour should be analysed (not just repeating purchasing product brand).

(4) Variables describing NPV (non-financial and/or financial value drivers) or market value (capitalization, MV/BV) should be used as explained variables in the research.

In summary, this study develops the theory of how marketing contributes to the value in B2B markets by: (1) the assumption of the NPV-relevant product description as the key concept in the conceptual framework and (2) presenting a clear differentiation between drivers and causes when explaining the contribution of marketing to B2B value creation.

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