

Collocational Networks Supporting Strategic Planning of Brand Communication: Analysis of Quarterly Reports of Telecommunication Companies

Pentti JÄRVI, Hannu VANHARANTA
Unit of Pori, Tampere University of Technology
P.O. Box 300 FIN-28101 Pori, Finland

Camilla MAGNUSSON, Antti ARPPE
Department of General Linguistics, University of Helsinki
P.O. Box 9 FIN-00014 Helsinki, Finland¹

ABSTRACT

This study addresses analysing quarterly reports from a brand-theoretical viewpoint. The study addresses the issue through a method which introduces both a quantitative tool based on linguistic theory and qualitative decisions of the researchers. The research objects of this study are two quarterly reports each of three telecommunications companies: Ericsson, Motorola and Nokia. The method used is a collocational network. The analyses show that there are differences in communication and message strategies among the investigated companies and also changes during a quite short period in each company's strategy. These changes reflect changes in the respective financial performance data of the companies.

Keywords: Collocational Networks, Company Brand, Communication, Quarterly Reports, Strategic Planning.

INTRODUCTION AND AIMS OF STUDY

Our main aim is to study how companies communicate their brands when the target audience is investors or stockholders, and thus potential and actual shareholders. The empirical material consists of six quarterly reports from telecommunication companies Ericsson, Motorola and Nokia. Osborne et al. [1] state that the text in annual reports reflects the strategic thinking of the management of a company. The specific questions addressed in this study are what exactly do companies say in their quarterly reports, what do they emphasise, how do they do this, and especially how is the brand strategic thinking seen in the contents of messages and how do these companies differ from each other in their message strategies? How do companies present their own name when business is going well as compared to when it is not?

Whereas many brand studies concern customer behaviour [2, 3, and 4], investors and shareholders have not been common objects of studies. In many cases advertisement is the main tool when creating and developing a brand. In this study, when the main target audience of the company is investors, also other communication activities are emphasised. The quarterly report should be seen as a means of marketing communication rather than as a piece of exact information about a company, even though law and practices in the corporate environment regulate its content.

The method in this study differs from traditional methods used in the brand context. This study aims to introduce a linguistic

point of view to the study, and the main concept in this method is a collocational network. So-called collocational networks have been used by Magnusson [5] to study and visualise the conceptual structure of quarterly reports. This study aims at giving a brand-strategic interpretation of such network diagrams.

BRAND THEORETICAL FRAME

Identity is a core concept in brand theory, and identity is based on the strategic brand analysis [2]. A customer or other actors have to recognise the brand among other brands, which also means that the brand has to differ from those of competitors. The difference has to be positive and based on the unique value proposition and credibility of the brand. The benefits and credibility of the brand have to cause favourable and brand-specific associations in a target audience's minds which requires successful positioning in order to get competitive advantages for the company. The benefits may be functional, experiential or symbolic [4, 6 and 7].

The brand will have many target groups, e.g. employees, investors and analysts, and its message must be relevant to each of them [8]. The financial reports have also many target groups. It is important for the company to communicate its actions to actual and potential investors, but possible readers are also employees of the company and representatives of other, competing companies. The mass media are interested in annual reports of large global companies as well. The existence of so many target groups with different interests means that the company has to plan the message strategy as a part of their communication strategies [9] and thus financial report text has to be planned very carefully.

Familiarity is an important feature of the strong brand [10]. Personality is also a key concept when emphasising personal relationships between the customer and the brand [3]. Ericsson, Motorola and Nokia are familiar worldwide companies. One would thus expect the brand strategy of each company to be based on the name of the company. Collocational networks can be used as a tool for studying what concepts in quarterly report texts are linked to the company name, interpreted here as a brand name. The second central feature of brand thinking is that brand is based on the long-term strategic decisions, e.g. what kind of values the brand must reflect at all times and how to keep its consistency [11 and 12]. The roots of the brand are often in the past.

¹ Other authors: Barbro BACK, Department of Information Systems, Åbo Akademi University, Lemminkäinengatan 14 FIN-20520 Turku, Finland and Ari VISA, Tampere University of Technology, P.O. Box 527 FIN-33101 Tampere, Finland.

Keller [4, cf. also 13 and 14] divides motives of brand into financial and strategy-based, consumer-oriented motives. Shareholders and owners have financial expectations towards the company. The brand is seen as an important asset for them among other assets of the company. "Brand equity is the incremental utility or value added to a product by its brand name" [15] and brand equity from the financial aspect is seen as market value of a brand or a firm's stock. Themes in communication to investors may include more features of professionalism [16].

METHODS

Collocational networks have been presented by Williams [17], based on a theoretical framework laid out by Phillips [18]. Their purpose is to extract from a text or a group of texts the most central concepts, interpreted as individual words, and the most significant links between these concepts. This is attained by using a statistical measure to rank the significance of co-occurrences of all collocates of all words in the text as compared to the occurrences of the words in the text(s) as a whole. A collocate is a word appearing within a specific window, i.e. distance of a particular word, the latter which is often dubbed the node of the collocate. The nodes and their collocates need not be adjacent, but can be separated by any number of words based on the size of the window.

Based on the chosen statistical measure, a cut-off point is used to select which words are incorporated into the network. The network is finally constructed by combining and arranging all the selected node-collocate word pairs into one diagram. If some word appears in several word pairs, it forms a nuclear node. To a nuclear node can be attached either individual nodes, i.e. words which appear only once in and in conjunction to the node in question, or other nuclear nodes.

In his study, Williams selected as the statistical measure the Mutual Information (MI) score, using an implementation by Church et al. [19] commonly used in linguistic studies. As the size of the window between the nodes and the collocates Williams chose four words both to the right and left, which has

become a standard in English lexicography starting with Sinclair [20].

Magnusson [5] has used a similar configuration for studying the conceptual structures of quarterly reports of three telecommunications companies, namely Ericsson, Motorola and Nokia, over a period of approximately two years (1999-2001). Magnusson's assessment was that collocational networks were specifically useful for discovering change in the communication of individual companies over time. Changes in the collocational networks represent changes in the underlying texts of the quarterly reports, which as stated above have been shown to correlate with the strategic thinking of the management and the subsequent financial performance of the company [1].

Consequently, in this study collocational networks representing the most conspicuous changes during the observed period for each of the three companies have been chosen. From the perspective of studying conceptual associations of the company names as brands in this study, one could find comparisons among the collocational networks of the three companies enlightening.

ANALYSIS OF QUARTERLY REPORTS OF ERICSSON, MOTOROLA AND NOKIA

Ericsson. In Ericsson's first and second reports for 2000 'mobile' is no longer the most central word as in 4/1999. 'Sales' is now the most frequent word. An interesting feature is that there are in 2/2000 several smaller networks and a large number of word pairs. This would indicate that the company wishes to present itself as versatile and working with many different things. The word 'Ericsson' occurs 33 times in the text, but in constantly varying environments.

There are significant structural differences between the networks in 3/2000 (figure 1) and 1/2001. In 3/2000 has three central words linked to each other: 'Ericsson', 'sales' and 'mobile'. These words also have four or five collocates of their own. But this is an exception in company brand strategy. In other reports of 2000 'Ericsson' is invisible.

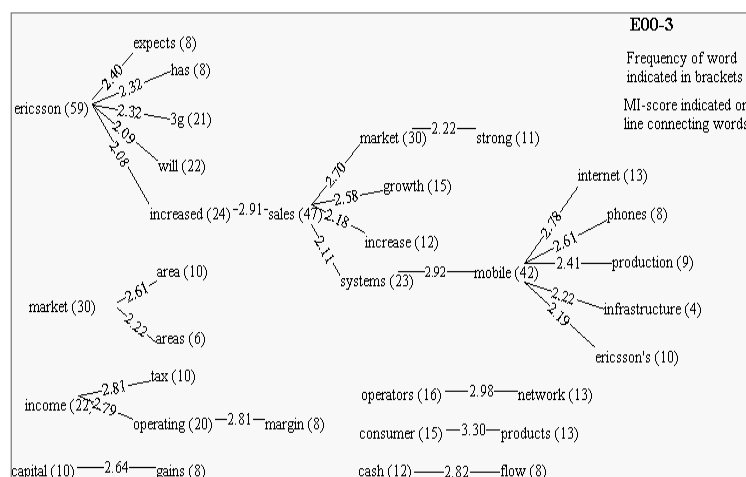


Figure 1. The collocational networks of Ericsson in 3/2000.

Ericsson's last quarter report for 2000 contains another way of presenting the company. The most frequent word is 'we' with 35 occurrences.

In 1/2001 the network looks completely different (figure 2). There are significantly fewer words. The most frequent word is 'mobile', which now only has two collocates.

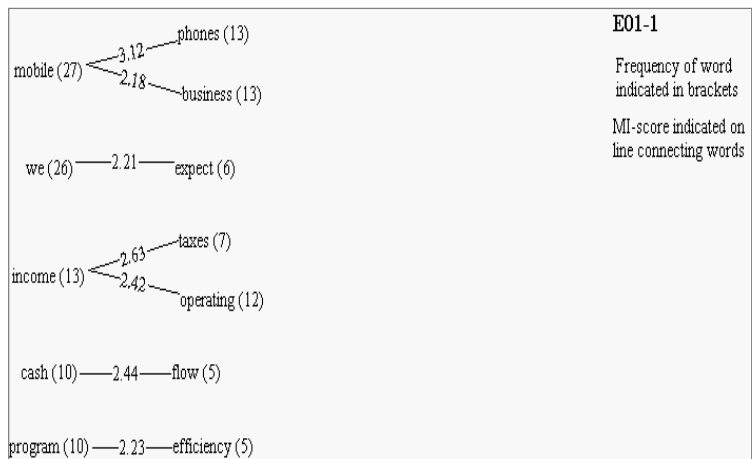


Figure 2. The collocational networks of Ericsson in 1/2001.

The words in the networks have also changed between 3/2000 and 1/2001. The report of 3/2000 contains a number of words, which are specific to the telecommunication industry ('3g', 'internet', 'phones', 'network', 'operators'). In 1/2001 all these words except 'phones' have disappeared, but more general business words like 'income', 'taxes', 'cash' and 'flow' remain. New in this network is the collocation 'efficiency' and 'program'. Karlsson et al. [21] studied the quarterly financial performance of Ericsson, Nokia and Motorola and found that there was a dramatic drop in the financial figures for Ericsson from 4/2000 to 1/2001. Ericsson's reporting policy emphasised words 'we' and 'operating' in 4/2000 and 'mobile' and 'we' in 1/2001. The company wishes to keep a low profile and try to direct investors' attention from the company-brand to the environ-

mental factors (e.g. 'market' and industrial concepts) and to the future (e.g. 'expect').

Motorola. The structure of the networks remains almost the same from 2/2000 to 2/2001. Both consist of one central word linked to 6-7 collocates (e.g. 'orders', 'down', 'systems'). 'Sales' is the central word in both networks (figures 3 and 4). 'Motorola' is the most frequent word in 2/2001, but it is not the central word as it is linked only to one word, 'announced'.

Some new collocates of sales denoting a change appear in 2/2001, such as 'down' and 'decline'. Other collocates have disappeared, as 'increased' and 'higher', which were in the report of 2/2000.

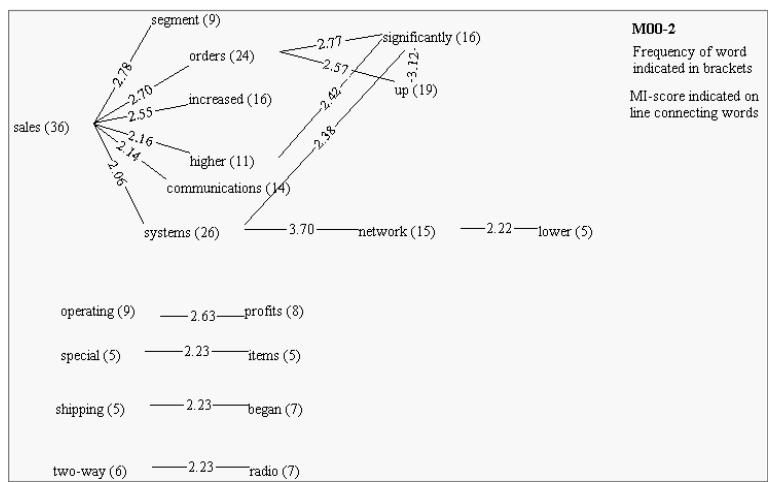


Figure 3. The collocational networks of Motorola in 2/2000.

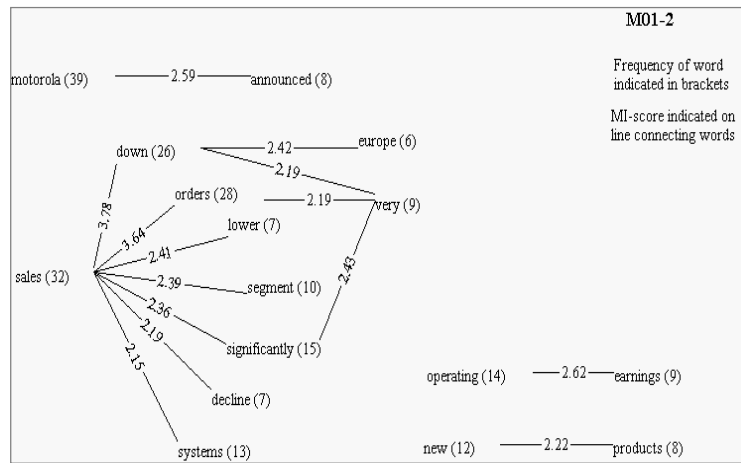


Figure 4. The collocational networks of Motorola in 2/2001.

Motorola had a large drop in their financial performance from M00-4 to M01-1 [21]. Motorola emphasises the company brand in 2001, but it has only one link. Negative associations as 'down' and 'decline' are linked to 'sales'. It may be interpreted that Motorola does not want to link bad news, represented by these negatively charged words, to its company name. Another notice is that Motorola is telling also openly about its economic situation.

Nokia. The most central word in 4/1999 is 'Nokia' with 96 occurrences. It is linked to several industry nouns ('mobile', 'networks', 'phones', 'gsm', 'communications', 'wap'). Outside the main network there are some other indications of Nokia's policy of mentioning themselves frequently. Self-referential words 'we' and 'our' also appear in two separate, smaller networks. All Nokia reports studied resemble each other closely. They all have one central word, 'Nokia', surrounded by many collocates (figure 5), a large number of which are neutral or positively charged (e.g. 'increased', 'launched', and 'continued').

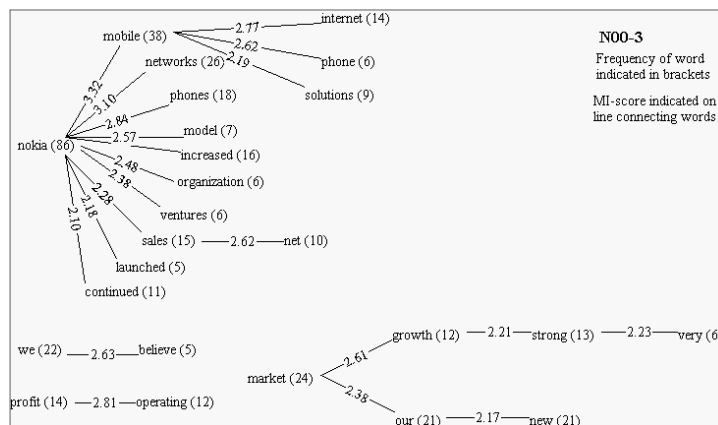


Figure 5. The collocational networks of Nokia in 3/2000.

The figure of 4/2000 is different from previous ones in the sense that it does not contain any smaller, separate networks. Most words are connected directly to 'Nokia' or to a direct collocate of 'Nokia'. In 3/2000, 'Nokia' is the central word with ten collocates and in 1/2001 it is still the central word, and the number of collocates has risen slightly. In 3/2000 the word 'market' also forms a smaller network of its own. By 1/2001 its collocate 'growth', with its collocates 'strong' and 'very' have disappeared. Words like 'Nokia ventures' and 'networks' occur frequently in Nokia's networks partly because they constitute the names of the company's business segments like Nokia Ventures Organization and Nokia Networks.

Nokia had a dramatic drop in their financial performance from 3/2000 to 4/2000 [21]. In quarterly reports it will be interpreted

as the aim to strengthen the company brand and to link it more tightly to mobile industry and markets and also positive and dynamic concepts as 'increased' and 'new'. Is it the aim to increase the trust of shareholders with positive messages towards Nokia? A new, quite significant collocate of Nokia in the network of 2/2001 is 'decreased'. In the text it is used with subjects like 'sales', 'profits' and 'earnings'. It usually occurs in the vicinity of the word 'Nokia'. Outside the main network there are interesting collocational pairs as 'our', linked to 'position' and 'cash', linked to 'flow'. 'Position' is used almost exclusively in connection with 'our', and it only occurs in contexts which wish to emphasise the positive aspects of events, such as "our position has developed" (figure 6).

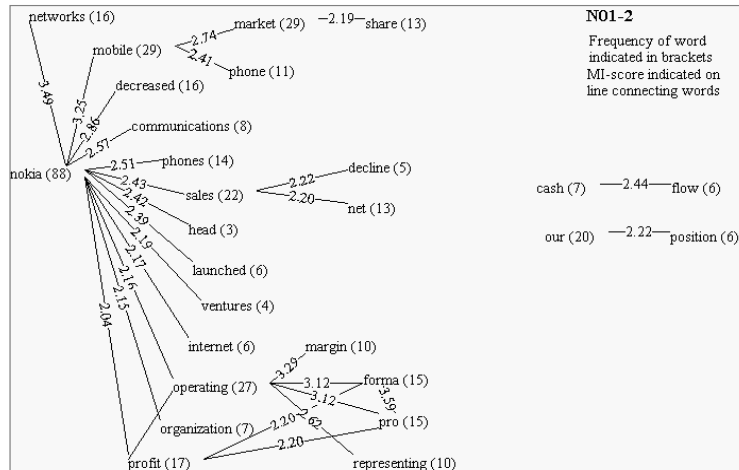


Figure 6. The collocational networks of Nokia in 2/2001.

DISCUSSION

The networks show the concepts that are central in the reports and the links between these concepts. Changes in the reports lead to changes in networks and words used in them. New words are introduced, others disappear. This does not mean, that companies are doing short-term brand strategy, because companies use their company names as brands. Single or new product names are not used often. Although the central word is not always the company name, the frequencies of company names are high in each case.

The appearance of new words in the networks indicates that these words just have been introduced in the reports, or have become more frequent in the reports, or occur together more often with other central words. The new words represent concepts, which the company now wishes to emphasise. The networks and links may also show the essential associations and images companies seem to cause in the minds of investors or stockholders. Whether these associations were actual and conscious goals of the companies and their managers was not studied.

Different categories of words are emphasised in different networks. There are general business words (e.g. 'market', 'sales', 'income'), words specific to the telecommunications industry (e.g. 'phones', 'mobile', 'internet', 'systems'), words expressing change, words referring to the company itself and words emphasising the company as a person ('we', 'our'). The companies use financial words appealing to financial motives of actual and potential investors, shareholders and analysts. Words may be very different from those used in consumer communication. Both groups want also to get different benefits from a company. The personality of the company-brand is expressed with collective words like 'we' and 'our', but no closer personal relationships between the company and investors were found.

There are obvious differences between the networks produced from quarterly reports of each company. This shows that companies emphasise and communicate different features of their identity. The reports of Nokia all resemble each other and they show stability, produce a compact figure and are quite self-centred compared to reports of Ericsson. The fact that Ericsson starts using a similar strategy in their third report for 2000 is quite interesting. Ericsson tries to find a new way of positioning the company near Nokia. It might be also an indication of the

intertextual nature of business documents, as the writers of Ericsson's reports also are very likely readers of Nokia's reports. This also shows difficulties of differentiating brands in hard competition when competing for the favour of investors.

CONCLUSION

We have used in this paper the method of collocational networks in analysing quarterly reports of three telecommunication companies. There have been changes in networks and word used in them. This reflects also changes in the brand strategic thinking of the management. The company brand has different position in changing economic situations of the companies. Different categories of words are emphasised in different networks and the company brand's position and its links to different concepts varies. In all cases the company brands were strong and familiar brands.

The interesting observation is that new and different brand-related concepts have been used when investors are target groups in the brand context compared to concepts used traditionally in consumer communication. When thinking of future research it may be interesting to study how stock markets have reacted after the publishing of quarterly reports using also other financial performance indicators. This might give new managerial contribution for planning and controlling communications and brand strategies.

REFERENCES

- [1] J.D. Osborne, C.I. Stubbart, A. Ramaprasad, "Strategic groups and competitive enactment: a study of dynamic relationships between mental models and performance", **Strategic Management Journal** 22, 2001, pp. 435-454.
- [2] D.A. Aaker, **Building strong brands**, New York: The Free Press, 1996.
- [3] M. Blackston, "Beyond Brand Personality: Building Brand Relationships", in **Brand Equity & Advertising**, eds. D.A. Aaker, A.L. Biel, pp. 113-124. New Jersey: LEA: Hillsdale, 1993.
- [4] K.L. Keller, "Conceptualizing, Measuring, and Managing Customer-Based Brand Equity", **Journal of Marketing**, Vol. 57, Jan. 1993, pp. 1-22.

- [5] C. Magnusson, **Analysing the language of quarterly reports using collocational networks**. Unpublished master's thesis, Department of General Linguistics, University of Helsinki, 2002.
- [6] S. Bhat, S.K. Reddy, "Symbolic and functional positioning of brands", **Journal of Consumer Marketing**, Vol. 15, Issue 1., 1998, <http://www.emerald-library.com/> 6.6.2000.
- [7] S.M. Broniarczyk, J.W. Alba, "The Importance of the Brand in Brand Extension", **Journal of Marketing Research**, Vol. XXXI, May 1994, pp. 214-228.
- [8] K. Roberts, "Brand identity 2000: Redefining the world", **Advertising Age**, Nov 1999, <http://proquest.umi.com/10.3.2001>.
- [9] P. Kotler, G. Armstrong, J. Saunders, V. Wong, **Principles of Marketing**, USA: Prentice Hall, 2001.
- [10] S. Owen, "The Landor ImagePower Survey: A Global Assessment of Brand Strength" in: **Brand Equity & Advertising**, eds. D.A. Aaker, A.L. Biel, pp. 11-30, New Jersey: LEA: Hillsdale, 1993.
- [11] J.R. Chevron, "The Delphi Process: a strategic branding methodology" **Journal of Consumer Marketing**, Vol. 15, No. 3, 1998, pp. 254-264.
- [12] G.S. Low, R.A. Fullerton, "Brands, brand management, and the brand manager system: a critical-historical evaluation", **Journal of Marketing Research** 1994, Wysiwyg://bodyframe.130/http://eho... 14.12.2000.
- [13] S. Davis, "A vision for the year 2000: brand asset management", **Journal of Consumer Marketing**, Vol. 12, Issue 4., 1995, <http://www.emerald-library.com/> 6.6.2000.
- Academy of Marketing Science**, Journal, Spring 2000, <http://proquest.umi.com/pqdweb>. 27.4.2000.
- [16] D.A. Alden, J-B.E.M. Steenkamp, R. Batra, "Brand Positioning Through Advertising in Asia, North America, and Europe: The Role of Global Consumer Culture", **Journal of Marketing**, Vol. 63, Jan. 1999, pp. 75-87.
- [17] G.C. Williams, "Collocational networks: Interlocking patterns of lexis in a corpus of plant biology research articles", **International Journal of Corpus Linguistics**, 3, 1998, pp. 151-171.
- [18] M. Phillips, **Aspects of Text Structure. An Investigation of the Lexical Organization of Text**, Amsterdam: North-Holland, 1985.
- [19] K. Church, W. Gale, P. Hanks, D. Hindle, "Using statistics in lexical analysis", Zernik (ed.) **Lexical Acquisition**, Lawrence Erlbaum: Hillsdale, 1991, pp. 115-164.
- [20] J. Sinclair, **Corpus, Concordance, Collocation**, Oxford: Oxford University Press, 1991.
- [21] J. Karlsson, B. Back, H. Vanharanta, A. Visa, "Analysing Financial Performance with Quarterly Data Using Self-Organising Maps", **TUCS Technical Report** No. 430, November 2001. ISBN 952-12-0915-1, ISSN 1239-1891.
- [14] W. Lassar, B. Mittal, A. Sharma, "Measuring customer-based brand equity", **Journal of Consumer Marketing**, Vol. 12, Issue 4, 1995, <http://www.emerald-library.com/> 6.6.2000.
- [15] Y. Boonghee, N. Donthu, S. Lee, "An examination of selected marketing mix elements and brand equity",