

## *Executive Summary*

# **From multiunit management to multidimensional organizations\***

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The multidivisional organization, also labeled multiunit organization, demonstrable is the most successful organization form innovated and applied the twentieth century. Despite its success and popularity increasingly this concept is associated with tensions, conflicts and dilemmas. Its very nature is impaired by the wide and successful application of shared service centers to reduce the costs of multiunit organization. Other issues, like e.g. account management and the exploitation of intangible assets like skills, knowledge and creativity, cannot be solved by the multiunit organization. A field research, commissioned by the Dutch Foundation for Management Studies on the state of the application of business unit organization or multiunit organization in the Netherlands, has produced some noteworthy results. Through interviews with 36 organizations, most for-profit companies (including Dutch subsidiaries of multinationals), two non-profit institutions and two government agencies, the following was found. The concept of unit management, that is to organize the firm in a number of self-contained business units as profit centers, is still very strong in the thinking of managers and as the basis for accounting systems. However no firms could be found in which business units still are fully self-contained organized. All business units, in varying degree, depend on resources organized outside their units to achieve their objectives. In at least five cases the mental anchoring to the unit-concept has resulted in debilitating problems with respect to issues like how to organize account management and project management organized cross business units, as required in these cases by the criteria of fit-to-market and fit-to-strategy.

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A small number of firms have overcome such problems and similar dilemmas by defining accountability for turnover and profit & loss simultaneously over multiple dimensions (product, region, account, market segment, industry). These firms have made separate managers accountable for each dimension. Examples are IBM, Microsoft, ASML, ABN AMRO, PwC and some others. Those companies have commensurate multidimensional management reporting, management information, and coordination & control processes, and are successful companies (except that ABN AMRO has been taken over by three other banks). The reason to operate such a multidimensional organization is the emergence of multidimensional markets, the need to exploit economies of scope, especially with respect to the exploitation of knowledge, to have higher effectiveness in management control, to be more flexible, to correct resource biased target setting, and to appropriate more value from the market, especially in the case of network industries.

The concept of the multidimensional organization was presaged by Ackoff (1977) and Prahalad & Doz (1979) and Prahalad (1980) but has virtually disappeared from the literature since then. Meanwhile the problems now solved with the multidimensional organization were time and again attempted to be solved with the matrix organization, to no avail. The present emerging of the multidimensional organization can be explained by using Arrow's (1974) *The Limits of Organization* in which the effects of decreasing costs of information on the organization and strategy of the firm are explained and by understanding the difference between how intangible assets are exploited most efficiently, especially expert knowledge, and how tangible assets are exploited.

Although the origin of the book is a field research on the state of the application of the concept of the multiunit organization, for reasons which hereafter will become clear, this book concentrates on this new organization form: the multidimensional organization. Most firms and institutions operate a multiunit organization, consisting of self contained organized business units, divisions and or operating companies. How well the multiunit organization has served us, and in many cases it still does, the unit organization cannot answer the requirements and the challenges of the economy of the twenty-first century; its limits begin to show clearly. As a result of which numerous firms and institutions wrestle with dilemmas which cannot be solved within the concept of the multiunit organization.

The objective of this book is to explain to executives, managers, members of staff departments and consultants what the concept of the multidimensional organization is, in which situations it should be applied, and what is needed to operate effectively a multidimensional

organization. In addition this book explains why the multiunit organization is meeting its limits, what the economic rationale of the multidimensional organization is, how it is managed and what consequences it has for corporate governance. This book helps executives and managers and other members of the organization to provide insights, to ask questions, and to identify criteria related to their specific situation to assist in making sound decisions for their own firm. The multidimensional organization is not one single specific organization form; it comprises a range of many organization forms. This includes the traditional multiunit organization, which simply is a one-dimensional organization, and remains to be applied in simple, one-dimensional environments.

### ***What is a multidimensional organization?***

In a multidimensional organization the performance of the firm (revenue, income) is reported simultaneously over multiple dimensions (product, customer, region, market segment), and each of these dimensions has its own manager who is made responsible and held accountable for the performance of the firm over his dimension, and is accountable for his individual contribution to the overall performance. All these managers have to optimize the performance of the firm with the customer (which is the profit center in the multidimensional organization) by cooperation. This cooperation not loosely defined as an cultural issue. This cooperation is based on a number of well chosen managers who find it a challenge to work as a team in a complex environment (market, organization). They cooperate on basis of a common goal and objectives and on basis of shared management information from one trusted source of transaction data to identify the opportunities of the firm and to capture these. They are motivated by their individual and collective contribution to the performance of the firm as a whole.

The multidimensional organization is to be applied when professional customers and consumers display multidimensional behavior and therefore markets are multidimensional. Also is needed an ambition expressed in the strategy of the firm to capture as much as possible value from the market through integration of products and services. The multidimensional organization nowadays is possible because the costs of information has decreased strongly and because a new generation managers have mental models which are more varied than the concept of the multiunit organization only.

## ***Dilemmas***

Which dilemmas created by the multiunit organization the multidimensional organization is able to solve? The following situations will be familiar to you:

- ¶ As an executive you are convinced that your business unit managers are best motivated when the business units are self-contained organized. However in your organization a debilitating discussion drags on whether the new account manager, who works for all business units, should have or not profit & loss responsibility. Profit & loss responsibility now is for 100% with the business unit managers.
- ¶ Despite all sophisticated marketing techniques your marketing department fails to define an unambiguous segmentation of you market. You customers run multiple and changing player's numbers. The effect of this is an immobilizing debate in your organization on what dimension to organize profit & loss responsibility along which to go to market. Or, you are an administrator in the public sector. Citizens and clients require service desks organized for specific target groups, that services all social security and welfare schemes. Whereas legislative bodies require accountability per individual regulation and law. Should you change the organizing dimension from that of regulation and law to that of specific target groups or not?
- ¶ The performance of your firm increasingly is determined by the performance of customer projects, crossing all business units—performance of each of these projects is critical for the performance of you firm. Therefore you want to monitor and control the performance of key projects unmediated. However, your business unit managers insist that the revenues and income of each of the projects are deconsolidated into their business units and that your management control is on the performance of their units only.
- ¶ To be in-control you would like to implement dual reporting in your organization. Technically speaking this is possible but your business unit managers resist this, arguing that dual reporting undermines their responsibility.

- ¶ Everybody in your organization supports that its core value is cooperation. Reality is power play and scoring off colleagues instead of concentration on a common objective and performance.
- ¶ Your firm would perform much better if all the knowledge in the organization would be shared and used for multiple products and customers. Although all managers agree to this, their bottom line responsibility for their business unit excuses them from doing so.
- ¶ Your managers feel irritated by the guys of the department for business intelligence who over and over again propose new key performance indicators and new management information, although none of them, including yourself, are satisfied with the present management information and performance parameters.

Many executives and managers try to solve these dilemmas within the concept of the multiunit organization. This is doomed to fail because the concept of the multiunit organization itself is the cause of these dilemmas. Alternative effective ways for solving these dilemmas are demonstrated in e.g. the case of Albert Heijn Company (AHC). AHC is the leading retailer in the Netherlands, comprising the chains Albert Heijn (food retail), Etos (drugstore), Gall & Gall (wine and spirits) and albert.nl the internet-home delivery services for all three chains. Performance simultaneously is managed on brands, 'clouds of consumer behavior', (defined in formats like the ToGo shops in railway stations), categories, outlets and regions. On each of these dimensions management information is available and managers are accountable for performance. The overall performance, turnover, profit, market share, etc., is simultaneously known and analyzed over all the dimensions of formats, categories, outlets and region's. In this way Albert Heijn Company is able to understand, to respond and to anticipate to the capricious consumer behavior and preferences. In a multiunit organization this is impossible or it is too time-consuming and takes too much effort.

***The multidimensional organization is no matrix organization!***

Quite some readers will frown upon the idea of the multidimensional organization as it will remind them of the horrors of the matrix organization. The multidimensional organization differs fundamentally from the matrix organization. The first difference with the matrix organization is that in the multidimensional organization the customer is the profit center, neither products nor regions

are profit center, as in the matrix organization. All the managers on the respective dimensions in the multidimensional organization are tasked to optimize the overall performance and the position of the firm with the customer as profit center. The second difference is that the ownership of the transaction data is with headquarters, not with business units or regions. Different from the matrix organization, the managers in the multidimensional organization cooperate on basis of one shared, trusted source of data which is taken care of by corporate accounting. A third difference with the matrix organization is that in the multidimensional organization no transfer prices are used between the dimensions, e.g. between the product manager and the account manager. With these differences the multidimensional organization offers solutions for issues sought after with the matrix organization, but without the disadvantages of the matrix organization.

### ***Questions you should ask yourself***

Before you call ‘Eureka!’, put away this book and inform your management team that you want to implement a multidimensional organization, you should be aware that also the rose of multidimensionality is not without thorns. You and your team should discuss a number of questions:

- ¶ When does a multidimensional organization make sense? It does so when your market is multidimensional and you see opportunities that through integration of products and services your firm will capture more value from the market. Only in case a specific market remains one dimensional, it can be served with the one-dimensional multiunit organization.
- ¶ How many dimensions your organization should count? This number can be established by identifying the number of dimensions (products, accounts, distribution) in the market that are critical for the success of your firm. Add to this number an additional dimension (what other dimension might become critical?) plus the functional dimension, that gives the number of dimensions to be organized.
- ¶ What is needed to transform the present organization into a multidimensional organization? An inspiring vision (expressed in the economic, or business model of the firm: “this is how we produce a profit”), an information system that is capable to generate the required management information simultaneously over the identified

dimensions, a critical mass of managers who enjoy working in a complex environment (and base their status and motivation on contribution, not on position) and are resourceful to solve issues by getting the right people to the table.

- ¶ Can the transformation be left to the CIO, due to the central role of information systems in multidimensional organizations? No, the key role to define the required management information, apart from leadership by the CEO, is with the CFO. The CFO has to translate the economic model of the firm into a system for multidimensional control, the management information required, the design of the information systems required for that, including the needed semantic standardization of transaction data. That being defined, it is the task of the CIO to build and operate the required information systems.
- ¶ How are managers in a multidimensional organization motivated? A new generation managers emerges whose innate motivation makes them to select the multidimensional organization as a social-economic environment to work in. Yours is the challenge to hold on to this new generation by inspiring them.
- ¶ What about risk management in the multidimensional organization? As a result of the multidimensional management information and the absence of information asymmetry you as a CEO are much better in-control compared to a multiunit organization.
- ¶ How do I explain the concept of the multidimensional organization to my stakeholders? By demonstrating delighting performance.

What needs an executive or a manager to know and to understand about the concept of the multidimensional organization in order to work with it successfully? Roughly speaking there are two types of executives. One type of executives studies the concept broadly and then decides to which (strategic) goals the concept can be applied. For this type of executives the adagio 'If all effort needed to succeed is known in advance, no effort will be taken at all' is true. This type of executive will embark on a journey for a new organization and during this journey the knowledge and insights needed will be acquired the moment issues and problems present themselves. The second type of executives will study the concept of multidimensional organization more in depth and try to understand it as best as possible to be able to lead the process of change in an anticipative way. Both styles can be effective, depending on the situation, the people and the availability and or lack of time.

The first type of executives is probably satisfied with this executive summary and reading a few case studies like IBM, ABN AMRO and Albert Heijn (chapter 2). The second type of executive is serves with the book as it is, who will find answers in it to questions like:

- ¶ In which situation, strategies, markets and business models is the multidimensional organization of relevance?
- ¶ Why is the multiunit organization reaching its limits; why are there more and more situations in which this model can no longer be applied?
- ¶ How does the multidimensional organization work, how is it managed?
- ¶ What are the HR aspects of the multidimensional organization?
- ¶ How can a unit organization be transformed to a multidimensional organization?
- ¶ What are implications of the multidimensional organization to corporate governance?

### ***When is the multidimensional organization to be applied?***

‘Structure follows strategy ... but the market is the common denominator’, was once written by Chandler. It is still true. The multidimensional organization is relevant if the company wants to operate successfully in a multidimensional market. This is a market in which customers behave capriciously and in multidimensional ways (multidimensional market segmentation exists for a long time, but does not take into account multidimensional customer behavior). E.g. the director-owner of a SME is counted in the SME segment of the market for financial services. When this director-owner sells its company, he/she will belong to the market segment of private equity clients. In a traditional unit organization this new dimension creates the risk that the firm fails to seize this market opportunity. In the multidimensional organization this additional dimension is foreseen beforehand and organized for and therefore this opportunity is easily captured.

A multidimensional market is a necessary but not sufficient reason to deploy a multidimensional organization. A customer may decide to integrate different products and services by himself, acquired from different mono liners, into the function (value) he is after. Because not all customers are able to do this efficiently, a market of intermediate integrators has sprung up, e.g. in the IT-industry, in the financial services. As a consequence these intermediate integrators capture the value that is created in the mechanisms of multidimensional markets. Besides, the existence of a

multidimensional market, an ambition is needed to capture as much as possible value from the market, by offering integrated products and services. This implies the need for a multidimensional strategy, e.g. the combination of a portfolio of regions, account management, market segments and low costs. Such a strategy implies, e.g. in the cases of IBM, Albert Heijn Company and Sanoma that these firms have made the choice for an integrated enterprise, that is not a firm comprised of self contained business units. In this integrated firm efficiency simultaneously is pursued through economies of scale, economies of scope and integration of products and services. How this is done, is explained in chapter 3, *Reasons why to deploy a multidimensional organization*.

### ***Limits to the multiunit organization and the new possibilities offered by the multidimensional organization***

One needs to understand why in an increasing number of situations the multiunit organization no longer can be applied and why it is reaching its limits. If this is not understood thoroughly ones thinking remains anchored in the paradigm of the multiunit organization. The effect of this will be that the very nature of the multidimensional organization is not understood nor its prospects, as a result of which its application easily becomes corrupted.

The limits of the multiunit organization, and with that the explanation of the emergence of the multidimensional organization, are at multiple levels: the operational level, the level of the business model, the governance level and the institutional level. At the operational level the multiunit organization is not capable to respond to multidimensional behavior of customers, be they professional customers or consumers, and therefore is ill equipped to seize new market opportunities.

At the level of the business model the multiunit organization is not capable to achieve the maximum output of knowledge as a production input. Knowledge, e.g. about the working of an electronic subsystem like a tuner, a software module, an insurance, can be copied and applied in multiple products and markets, at low cost and without loss of quality and details. Exploitation of knowledge produces maximal revenues if a module of knowledge is applied in as much as possible products and markets. The attempt to exploit knowledge cross business units by applying knowledge management systems turned out not to be effective. As a result of which the output of knowledge remained restricted to the scale and scope of the unit in which the knowledge is based. The multidimensional organization removes this restriction, because in the multidimensional organization knowledge as a resource is corporate wide available for all regions, products and market segments.

This is made possible because a multidimensional recording of (external and internal) transactions. This enables an efficient cost allocation and allocation of the returns on the alternative applications of knowledge in whatever product, market or account in a transparent way.

At the governance level the limits of the multiunit organization are threefold. The first restriction is that due to differentiation in products, services and an increasing level of specific knowledge, that is knowledge that is difficult and costly to transfer between individuals, the information asymmetry between the executive board and business unit management has increased to a level that causes the executive board to be out of control. It becomes increasingly difficult for an executive board to be in-control on basis of management information that is defined by the single dimension of the business unit. The second limit is that—partly as a result of information asymmetry, partly as the result of a common practice to have the ownership of transaction data with the regions or product-units—the adaptability of the unit organization falls short to the dynamics in the economy, market and technology. A third restriction at governance level is that in the multiunit organization market opportunities and opportunities for alternative deployment of resources often are overlooked. This is because market opportunities and resources are organized under one responsibility, that of the unit manager, who therefore in many cases is inclined to risk adverse behavior and resource hoarding, resulting in suboptimal targets for return on capital invested. In the multidimensional organization market opportunities and resources are decoupled organized under separate managers, as a result of which the return on capital invested is higher and the growth potential of the firm will be higher.

At the institutional level the multiunit organization is faced with a number of limits as well. Management control in the multiunit organization (as in other traditional organization forms) is based on the assumption that the corporation has the power of alienation over the assets being deployed. With the shift in the economy from exploiting tangible assets to intangible assets, which as specific knowledge increasingly are owned by professionals and creative workers, this institutional basis of control is impaired. This impairment cancels the possibility of tight control, one of the pillars of the efficiency of the multiunit organization. The multidimensional organization solves this problem by separating, and organizing separately transaction data from other types of information, especially content type information that is exploited through product development, services, etc. A second institutional limit to the multiunit organization is that this organization form assumes that the executive board has discretion on how to spend the free cash flow generated by the business units, respectively by the divisions. In this way the divisions are protected from being exposed to the

requirements of the capital market. Due to the corporate finance revolution the executive board has lost its discretion on how to spend the generated cash flow. As a consequence the discretion of the executive board to set the strategic course of the firm has become restricted. The multidimensional organization reflects the integrated enterprise which cannot be defined as a portfolio of self-contained investment projects; it is one integrated economic model. Therefore the executive board of a firm running a multidimensional organization has more power to define the strategy of the firm, compared to the multiunit organized firm. This aspect is elaborated in chapter 1, in which is explained why the success of the multiunit organization has created the need for multidimensional organizations.

### ***The working and the management of a multidimensional organization***

The difference between a multiunit organization and a multidimensional organization with respect to their working and how these are managed can be summarized as follows. In a multiunit organization each of the units has its own mission, usually under the umbrella of some corporate mission. In a multidimensional organization there is only one—corporate—mission. In the multiunit organization the first administrative instrument for coordination and control is setting the business scopes of each of the business units. In the multidimensional organization the first issue is to identify which dimensions in the market are most critical for the success of the firm. In the multiunit organization the economic model is defined per business unit and in most cases it is implicit. In the multidimensional organization the economic model of the firm is explicit and it is defined at corporate level. In the multiunit organization the business unit managers are selected and appointed on basis of an attitude to be territory oriented (motivated by resource and power) and who are inclined to a hierarchical attitude. In the multidimensional organization managers are appointed who have an attitude of being contribution oriented (motivated by reputation). These managers by nature will embrace the overall map of the organization as an economic system and will use it for maximum self coordination. In the multiunit organization budgets for targets and resource allocation are set per unit on a yearly basis. In the multidimensional organization budgets are set on basis of rolling forecasts, with the possibility to shift resources between dimensions along the way when needed. In the multiunit organization targets are set per business unit, in which a trade off is made between market opportunities and resource capability at the level of the business unit. In the multidimensional organization the conflict between market opportunities and resources is put on the

table of the executive board to achieve the maximum firm performance. In the multiunit organization decision rights are partitioned and attributed per business unit, through the approved business plan and budget. This includes parity between tasks, decisions rights, and resources. In the multidimensional organization decisions rights are attributed per dimensions, this is functional, and the partition is based on the business model of the firm. In the multiunit organization management control is hierarchical between the executive board and the management of the business units. In the multidimensional organization management simultaneously is hierarchical and horizontal, due to the absence of information asymmetry. These aspects are elaborated in chapter 4, in which the internal governance of the multidimensional organization is explained.

### ***The human relation aspects of the multidimensional organization***

A primary concern of executives not familiar with the multidimensional organization is the motivation of the managers in the multidimensional organization. In the multiunit organization the motivation of managers is based on their freedom to manage their own business. The multidimensional organization doesn't tolerate managers who by hook and by crook want to run a business on their own. The multidimensional organization caters for managers and workers who want their reputation being based on the overall performance of the firm. In this way the multidimensional organization fits the new generations of managers and workers. The multidimensional organization depends on individuals who are motivated intrinsically and who look for an environment that inspires them and in which they can work fully to that motivation.

Because in a multidimensional organization the *span of control* (over resources) is small compared to the *span of accountability* (which is the same as in a multiunit organization), the *span of influence* ("Who do I need to interact with and influence to achieve the goals for which we are accountable?"), and the *span of support* ("How much support can I expect when I reach out to others for help?") need to be as wide as possible. Despite this the cooperation in a multidimensional is not simply a matter of culture. Cooperation is on basis of one trusted source with respect to management information, one common goal and acknowledgement of each individual contribution. The bonus of the managers, whether responsible for a market, a product or an account, is based on the overall firm performance. This is elaborated in chapter 5, *the human resource in the multidimensional organization*.

***The transformation of the multiunit organization to a multidimensional organization.***

A question many executives are concerned about whether the transformation of a multiunit organization into a multidimensional organization can only be achieved through a big bang, with deep disruptive effects with the people in the organization, or whether an incremental, organic transition is possible as well. Also in the case of multidimensional organizations case big bangs do not work and incrementalism remains a flight from problems. Two factors how to transform from a multiunit organization into a multidimensional organization were mentioned before: a vision acknowledging the multidimensional nature of a market, and an ambition, expressed in a strategy, to be successful in such a market, especially to appropriate as much as possible value from that market. This implies that before embarking for some type of multidimensional organization, first the new economic model, as implied by the strategy, needs to be made explicit. In the multidimensional organization its economic working overrides the traditional hierarchy of positions. Needed is a critical mass of individuals who understand the new reality in the market and who enjoy in working with and in its corresponding complexity to achieve results. These are individuals who by nature look for the overall map of the game and understand its working.

Special attention is needed for the organization of the management information and its underlying systems to migrate from a multiunit organization to a multidimensional organization. It is essential that all transactions of a firm, both the external (with customers and suppliers) and the internal transactions (e.g. hours spend by a worker on different projects), are recorded in one data base (either physical or logical through interoperability) and are recorded with multiple dimensions (which typical will require a somewhat longer record length). Usually this data base will be under the responsibility of the corporate accounting department (at least by governance, its operations will be with the IT department). This database for the general ledger will as much as possible be neutral with respect to any business model or profit model. Business models and profit models tend to change every five year or so, whilst transactions remain transactions and IT-systems typical have a life time of about ten to fifteen years. This requires the CFO to define the semantic standardization of the transaction data and that the required management information is defined on basis of the business model, not on basis of available data in the IT-systems or subjective parameters. This change in defining management information cannot be left to IT-specialists. This is elaborated in chapter 6, *on the new dimensions of change management*.

### ***The multidimensional organization and corporate governance***

The emergence of the multidimensional organization changes the system of power between the executives and the investors: the executive board gains power vis-à-vis investors by applying the concept of the multidimensional organization. At the same time the executive board has to fulfill the promise of the multidimensional organization. In other words: a higher performance and being more effectively in-control. The multidimensional organization raises a number of questions with respect to corporate governance. For instance, should the supervisory board be provided with multidimensional information? Should the information in the annual report contain multidimensional information on the firm performance (which already is practice with a number of firms)? The multidimensional organization may give rise to new tensions between the executives and investors. In the case of the multiunit organization the firm is considered as a governance model for a portfolio of self-contained investment projects. The multidimensional organization may be more transparent for its executives, for the investors it appears to be one investment project, and therefore appears to be less transparent. At the same time the concept of the multidimensional organization adds a new dimension, a more entrepreneurial dynamic dimension, to the idea of being in-control, compared to how it presently is defined by auditors. The multidimensional organization creates a free rein to the entrepreneur. This is elaborated in chapter 7 *on the consequences of the multidimensional organization for corporate governance*.

With this book we are on to a new phenomenon in the field of organization forms. The multiunit organization was a response to then absent or inefficient capital markets, high costs of information, and partly a move to create market power where cartel formation was illegal. The multidimensional organization is a response to an increasingly differentiating society, the exploitation of content and an answer to the demand of the new generation workers for a multidimensional space in which to contribute to others. Partly the multidimensional organization is an answer to the new power of the capital market. It seems that in this multidimensional space managers no longer work with 'their own people' and that each works on its own. To the multidimensional applies, to paraphrase the German sociologist Ulrich Beck, the paradox of modern society: 'Working alone means working socially'.

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