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# SPINNING OFF THE INFORMATION SYSTEMS SUPPORT FUNCTION

Dr. Armin Heinzl,  
Lehrstuhl für Betriebswirtschaftslehre, insbesondere  
Wirtschaftsinformatik und Informationsmanagement

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Wissenschaftliche Hochschule für Unternehmensführung Koblenz  
Haus d' Ester - Heerstraße 52  
5414 Vallendar  
Telefon 02 61 / 65 09 - 0  
Telefax 02 61 / 65 09 - 1 11

**SPINNING OFF THE INFORMATION  
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**DR. ARMIN HEINZL**

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## CONTENTS

1. Managerial problems within the IS support function
2. The concept of spinning off the IS support function
3. Objectives and methods of the analysis
4. The spinning off behavior and corporate characteristics
5. Motives and occasions for spinning off the IS support function
6. Types of spinning off the IS support function
7. Impact analysis of spinning off the IS support function
8. Conclusions
9. References

### 1. MANAGERIAL PROBLEMS WITHIN THE IS SUPPORT FUNCTION

Computer based information systems and technologies have been used to support corporate activities for more than 30 years. First, the focus of information systems (IS) was on the support of routine tasks like accounting, payroll or inventory management. Later, especially during the past ten years, information systems have gained strategic importance. Within specific industries, the competitive forces may be influenced by the use of information system and technologies. These instruments obtained a strategic character<sup>1</sup>.

While the importance of corporate information systems has changed, the organizational and managerial framework remains more or less the same. The IS support function is allocated mostly in centralized or decentralized departments that report mainly to the chief financial officer. Beside the strategic importance, the increasing complexity of integrated application architectures and the rate of innovation of information technology has lead to a variety of managerial problems. Important problems are:

- the rising costs for planning, developing and operating the information systems and their required infrastructure,
- the difficulty of managing and controlling of the IS support function,
- quality problems in the field of systems development and systems operations,
- the poor service mentality of the IS personnel,

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<sup>1</sup> See also McFarlan, F. Warren: Information Technology changes the way you compete. In: Harvard Business Review, Mai-June 1984, pp. 98 - 103 and Porter, Michael E.; Millar, Victor E.: How information gives you competitive advantage. In: Harvard Business Review, July-August 1985, pp. 149 ff.

- imprecisely defined task boundaries between the IS department and the users,
- motivational problems of the IS personnel,
- the low rate of innovation,
- difficulties in recruiting IS specialists,
- the high salary level of IS personnel,
- specific risks such as technical risks, the risk of strikes and liability risks<sup>2</sup>.

In the future, the problems listed above will be accompanied by several new challenges. Extensive standard software packages are offered for mainframe computers as well, which in turn will increase cost and quality pressure for corporate systems development. Due to stagnating mainframe markets, traditional computer manufacturers are beginning to offer services. The supply of timesharing services, facilities management, network services and value added services increase the cost and quality pressure for systems operations. Additionally, the situation in the labour market seems to be unlikely to change in the current decade<sup>3</sup>.

Due to these problems and challenges, there is a need for alternative managerial and organizational concepts for the IS support function. In the following, it will be argued that spinning off the IS support function helps to reduce the problems and provides the chance to cope with the challenges.

## 2. THE CONCEPT OF SPINNING OFF THE IS SUPPORT FUNCTION

Spinning off an internal service function or distinct parts of a corporation is not a new managerial instrument. But the definition of the term "spin off" is ambiguous. In organizational theory, the process of spinning off is understood as a transfer of internal tasks and functions to external organizations<sup>4</sup>. According to the general theory of law, a spin off is a partial transfer of assets from one or-

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<sup>2</sup> See also Selig, Jürgen: EDV-Management - eine empirische Untersuchung der Entwicklung von Anwendungssystemen in deutschen Unternehmen, Berlin u.a. 1986, pp. 51 ff.

<sup>3</sup> See also Elam, Joyce J.: Establishing cooperative external relationships. In: Elam, Joyce J.; Jiminez, Sharlene S.: Transforming the IS Organization, Washington 1988, pp. 83 ff.

<sup>4</sup> See also Selchert, Friedrich W.: Die Ausgliederung von Leistungsfunktionen in betriebswirtschaftlicher Sicht, Berlin 1971, p. 51 and Wysocki, Klaus von: Rationalisierung durch Ausgliederung durch Betriebsaufgaben. In: Zeitschrift für Betriebswirtschaft 1/1961, p. 31

ganization to at least another organization<sup>5</sup>. Hence, a synthesis of the organizational and legal definition seems to be convenient. In the following discussion, a spin off is defined as a transfer of functions and assets to at least one other organization.

For example, if both, the IS function and related assets are transferred, the result of the spin off will be an IS subsidiary that focuses on IS services. The IS subsidiary may be an acquired organization or can be newly founded. The mother corporation still has the chance of exercising power of direction through capital and personal ties.

If only the function is transferred to another organization but no assets, the result is not a spin off. There is no capital tie-up and the IS services will be exchanged on the basis of contractual relations only. The IS services will not be purchased from an IS subsidiary, but from an external service supplier. The process of transferring the IS function only can be described with the term "outsourcing". The process of outsourcing is mostly performed within the U.S., especially in corporations with high market pressure<sup>6</sup>.

If there is only a transfer of assets but no function, it can be described as a pure capital investment. The transferring corporation is not interested in obtaining better or cheaper IS services. The only objective is profit maximization and a high return of the investment.

### 3. OBJECTIVES AND METHODS OF THE ANALYSIS

The following article is based on a comprehensive study of corporate IS spin offs in Europe and the U.S. In order to explore the motivation, types, and effects of IS spin offs, the following questions were analyzed:

- What is the rate of the Fortune 500 companies that have spun off their IS support function?
- Are there any links between the characteristics of the firms and the spinning off behaviour?
- Which are the motives, organizational types, and effects that go along with IS spin offs?
- Are there any dependencies between the various types and effects of IS spin offs?

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<sup>5</sup> See also Neye, Hans-Werner: Die Ausgliederung bei Aktiengesellschaften nach französischem Gesellschaftsrecht - Ansätze für eine künftige Regelung im deutschen Recht. In: Der Betrieb 7/1982, pp. 365 ff.; Loi No. 66 - 537 du 24 juillet 1966 sur les sociétés commerciales. In: Journal Officiel de la République Française, Lois et Décrets, du 25 et 26 juillet 1966, pp. 5402 - 6440; Schwarz, Stefan: Die GmbH als Konzerntochtergesellschaft: Recht, Steuer, Betriebswirtschaft, Bielefeld 1988, pp. 124 ff.

<sup>6</sup> See also Krass, Peter: The Dollars and the Sense of Outsourcing. In: Informationweek, February 26, 1990, pp. 26 ff.

In order to answer these questions, a broad theoretical analysis was performed first. A number of hypothesis were elaborated. Then, the verification of the hypothesis was achieved through an empirical survey. The 500 largest companies of former West-Germany, Western Europe and the U.S. were sent an eight page questionnaire. The analysis of the questionnaires was performed with descriptive, inferential, and multivariate statistical methods. Concerning the motives, a factor analysis was made in order to derive major goal dimensions. A cluster analysis helped to cluster the analyzed corporations into motive groups. Then, it was examined which of the motive groups were most successful. In addition, a discriminant analysis helped to identify various success factors for IS spin offs. All results are documented in a study containing more than 270 pages. The illustration of all results would go far beyond the scope of this article. Therefore, only the basic results are outlined in the following chapters.

#### **4. THE SPINNING OFF BEHAVIOUR AND CORPORATE CHARACTERISTICS**

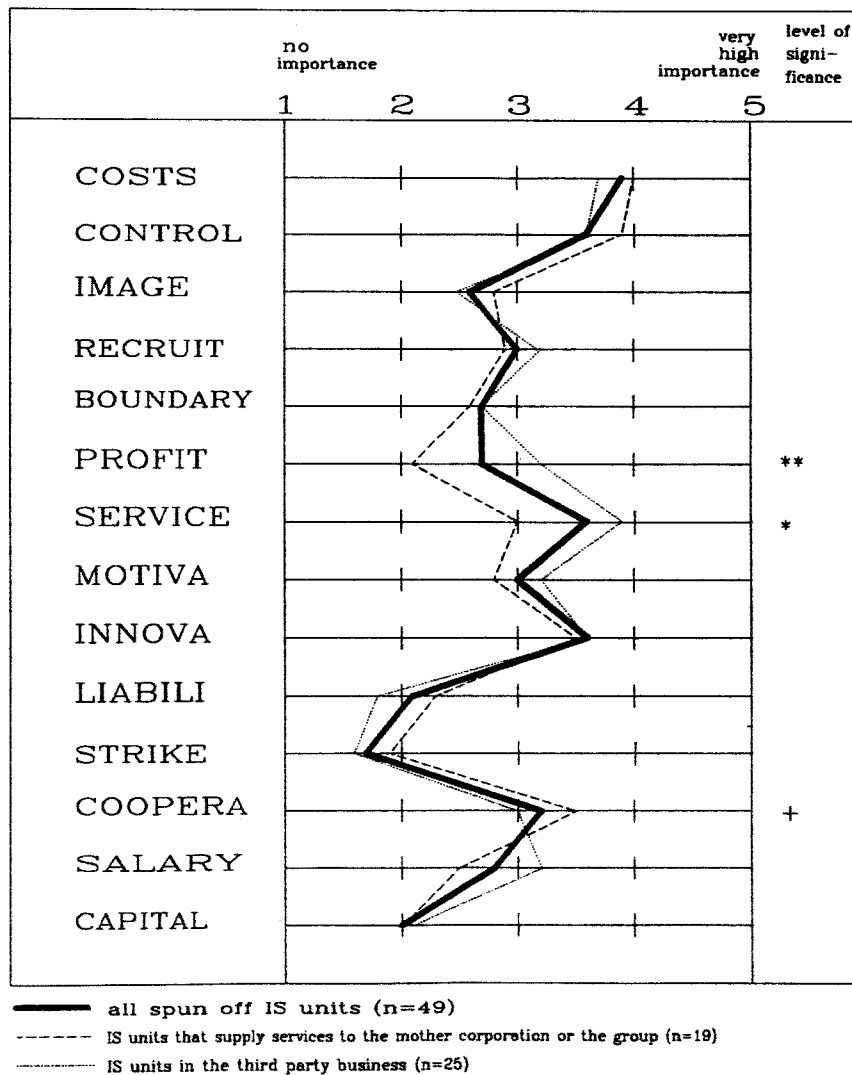
The return rate of the survey was 23.34%. Among the 359 answering corporations, 53 did spin off their IS support function. This corresponds to a spin off rate of 14.8%. After the spin off rate was explored, possible dependencies between general characteristics of the corporations and the spinning off behaviour were examined. The following significant correlations were identified:

- Survey area: German companies spin off their IS services more often than other European or U.S. corporations. German corporations consider IS spin offs as a chance to be more innovative, to establish cooperations with other companies, and to capitalize self developed software.
- Industry: Industrial companies spin off their IS support function more frequent than service corporations. The risk of losing leading know how or sensitive data prevents services corporations from spinning of their IS services that often have strategic importance.
- Organizational structure: Companies with a divisional structure spin off their IS support function more often than corporations with a functional or matrix structure. This result supports the general statement that spin offs are a specific attribute of the divisionalization.
- Third party business: Companies which have delivered IS services to external organizations already are more likely to spin off their IS support function than those corporations whose IS departments exchanged their services only within the organization. More than 35% of the Fortune 500 companies sell IS services to other corporations. An IS spin off helps to concentrate on the new business field and to reduce liability risks.

However, no dependencies could be determined between the spinning off behaviour and the size of the IS department, the applied instruments of cost allocation, as well as the degree of decentralization of the IS support function.

**5. MOTIVES AND OCCAISONS FOR SPINNING OFF THE IS SUPPORT FUNCTION**

The main motives for spinning off the IS support function are to achieve cost improvements (COSTS), to increase the poor service mentality of the IS personnel (SERVICE), to ameliorate the management and control problems of the IS function (CONTROL), to improve the rate of innovation (INNOVA), and to foster the ability for cooperation (COOPERA). The reduction of liability risks (LIABILI) and strike risks (STRIKE) on the contrary appear to be of minor importance. The entire profile is shown in exhibit one.



**Exhibit 1: Motives for spinning off the IS support function**

Exhibit one also indicates the importance of the remaining motives, e.g. to improve the image of the IS department (IMAGE), to increase the flexibility in recruiting new IS specialists (RECRUIT), to build more concrete task boundaries between the IS unit and the users (BOUNDARY), to generate profits (PROFIT), to improve the motivation of the IS personnel (MOTIVA), to introduce more flexible wage and salary systems (SALARY), and to capitalize self developed software (CAPITAL).

The motives were also analyzed to see whether the new IS subsidiary intends to exchange its services with the mother corporation respectively within the group or with external, non-linked organizations. Corporations that also seek their customers outside the group consider generating profits, and improving the service mentality of the IS personnel more important than the internal service exchangers. On the other hand, IS units that supply the mother corporation and companies within the group have a stronger motivation to improve their ability for cooperation than the IS units in the third party business.

In many corporations, the current problems within the IS support function and the related motives as mentioned above are not always sufficient to practise an IS spin off. In many cases, specific occasions are necessary to start the process of spinning of the IS services. The survey showed that a restructuring of the whole organization or group, negative trends of profitability in the core business, and spinning off activities of competitors catalyze own IS spin offs.

Besides motives and occasions, the persons who initiate the discussion on spinning off the IS support function play also an important role. Though the IS managers could improve their own position as a president of a legally independent IS subsidiary, the discussion is initiated by another group of persons. Executive management realizes IS spin offs as an opportunity to overcome lacks of profitability and IS related problems. Sometimes, consultants are responsible for starting the discussion on IS spin offs. The users play a minor role in initiating the process of spinning of the IS services.

## **6. TYPES OF SPINNING OFF THE IS SUPPORT FUNCTION**

Before the effects of IS spin offs can be analyzed, possible types have to be examined. The various types may influence the effects and, therefore, are important variables in designing an IS subsidiary. The main variables were also covered in the survey:



- Investment of the mother corporation: In more than two third of all cases, the spun off IS unit has the status of a subsidiary with a 100% investment of the mother corporation. This fact indicates the desire of exercising a high degree of power of direction.
- Size of the IS subsidiary: Exactly half of spin offs have a unit size between 100 and 499 employees. 25% of the examined IS units have at least 500 employees. In more than half of all cases the size of the spun off IS unit equals the size of the former IS department. In more than 25%, the size of the new IS subsidiary was larger than the former IS department. In these cases, other IS departments within the group were merged during the spin off with the own former IS department.
- Scope of the spin off: In more than half of all cases the entire IS function was spun off. In the remaining cases only subfunctions like systems development, the systems operations, or specific IS services such as systems integration, information center, training services, or specific software packages were subject to the spin off.
- Distribution of the customers: More than a third of the spun off IS units deliver services to the mother corporation, nearly a half supplies services to other companies within the group and the remaining units exchange services with external (non-linked) corporations.
- Reporting: In more than two third of all cases, the spun off IS units report to their mother corporation. In contrast to the situation before the spin off, executive management is the most frequently named organizational unit to receive the reports. Before the spin off, the IS departments' location is primarily finance or accounting.
- Service regulations: There may exist service regulations between the mother corporation and the spun off IS unit. In 37% of all cases, the mother corporation has to purchase the IS services from its new subsidiary. In 12% of all cases the IS subsidiary has to serve the mother corporation whenever it is asked to do so. In 19% of all cases the mother merely has to request an offer, e.g. the IS unit is not obliged deliver. In 27% of all cases the mother corporation is free to purchase the IS services from a third party vendor. There is an unlimited coordination through the market.

## **7. IMPACT ANALYSIS OF SPINNING OFF THE IS SUPPORT FUNCTION**

Following the motives and types, the impacts of IS spin offs were subject of analysis. First, various effects were monitored through the degree of goal accomplishment of the former analyzed motives. Therefore, the same variables listed in the motive analysis were examined. Because IS spin offs may

lead to positive as well as negative effects, bipolar rating scales were used. The strongest positive effects will be briefly discussed.

The analysis indicates, that IS spin offs improve the management and control of the IS support function. The duty to prepare balance sheets makes the IS function more transparent and helps to reduce complexity for senior management. Instead of a task oriented management style, a result oriented management style is possible.

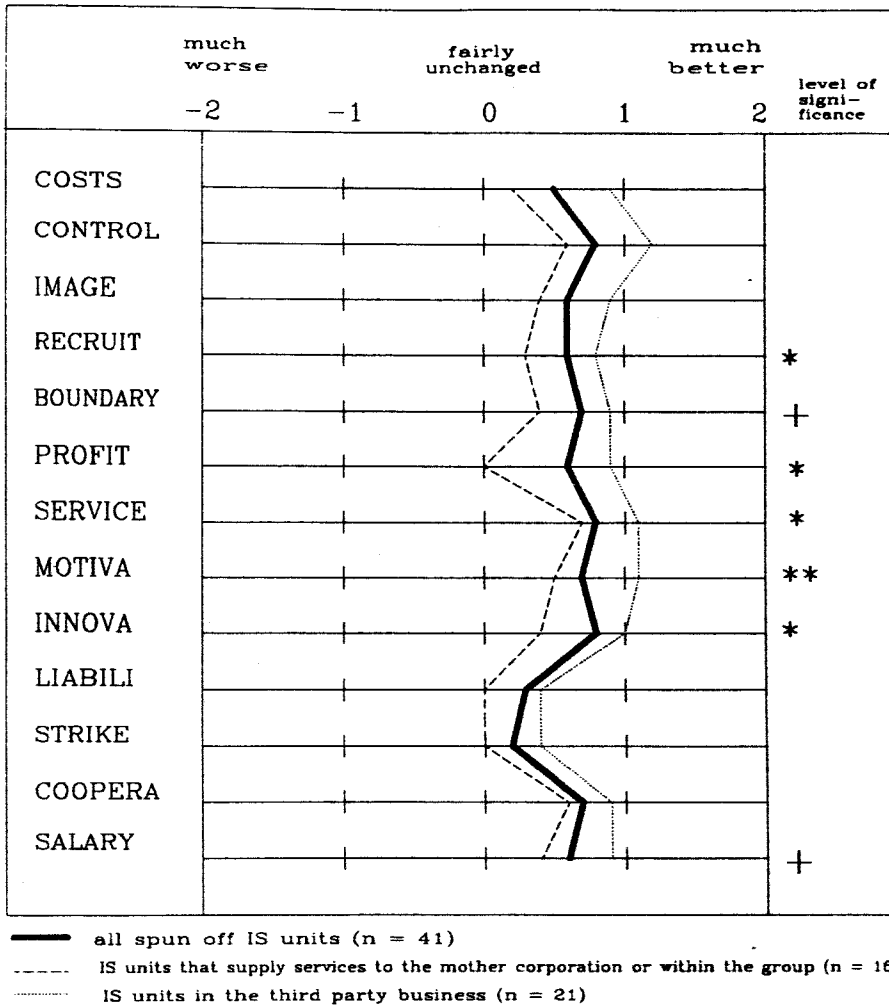


Exhibit 2: Positive effects of IS spin offs

Furthermore, a better service mentality in the IS personnel as well as an improvement of the rate of innovation in the IS field can be achieved. The main reason for this development is an upcoming market orientation. The option of the users to purchase IS services from external suppliers puts a certain pressure on the service mentality of the IS staff, while third party business may lead to a know how transfer from other corporations.

IS spin offs also imply a better ability for cooperation in joint projects. The legal framework of an independent corporation and the chance of merging functional parts of different companies provides a compelling and proved basis for joint IS activities. Additionally, small corporations like software houses or the suppliers of the mother corporations' core business are general more likely to cooperate with small IS subsidiaries instead of large corporations which often appear inert and too mighty. The entire profile of the effects is shown in exhibit 2.

IS subsidiaries that supply services to companies outside the group, report a higher motivation of their IS personnel. Furthermore, the market orientation forces external service suppliers to innovate more and faster. They are also more flexible and successful in recruiting new IS specialists from the labour market. Besides more flexible wage and salary systems, this fact may be caused by the higher number of potential customers and projects which leads to a greater task variety and a higher job attractiveness. Third party business helps also to clarify the task boundaries between the IS unit and the users.

NEGATIVE SIDE EFFECTS	
Works council / union tried to stop the spin off	
count	10
percent	16.7%
Employees were against the spin off	
count	4
percent	6.7%
Operating units of the mother have been neglected	
count	7
percent	11.7%
Overhead costs have increased substantially	
count	8
percent	13.3%
Image of the mother has hampered external business	
count	4
percent	6.7%
Contractual arrangements were insufficient	
count	9
percent	15.0%
Other companies have obtained sensitive data	
count	2
percent	3.3%
Other companies have obtained leading know how	
count	3
percent	5.0%
Difficult integration of acquired / merged units	
count	5
percent	8.3%
Other	
count	8
percent	13.3%
TOTAL	
count	60
percent	100.0%

Exhibit 3: Negative side effects of IS spin offs

Second, the impact of the spin off types on the effects were analyzed. Main impacts are achieved through the size of IS unit as well as the amount of capital investment. Large IS subsidiaries clarify the task boundaries between the IS unit and the users more easily than small IS subsidiaries. Large IS units also help to improve the image of the IS support function. Furthermore, large units foster the motivation of the IS personnel. Capital investments above 50% influence the manageability and controllability of the IS subsidiary positively. Too low capital investments of the mother corporation may lead to problems in exercising the desired power of direction and control.

Third, the effects are often accompanied by negative side effects, which may call an IS spin off into question. More than two third of all corporations report at least one negative side effect. A summary of all considered negative side effects is shown in exhibit 3.

Most frequently, the works council or the union tried to stop the IS spin off because of inadequate information or the fear of losing power. In nine cases the contractual arrangements of the new IS subsidiary were insufficient. Delivering services to external corporations require general terms and conditions which normally exist in the mother corporation but rarely in the new IS subsidiary. Additionally, third party engagement sometimes leads to a neglect of the user departments of the mother corporation. Market engagement is more attractive and compelling so that the own group may suffer. It is also remarkable that IS spin offs can lead to the loss of sensitive data and strategic know how. Other corporations have obtained valuable information or know how simply by purchasing various services from the newly formed IS subsidiary which have not recognized that the delivered services had a strategic importance for the own corporation.

## 8. CONCLUSION

In general, the analysis suggests that IS spin offs are recommendable for companies in which the IS support function has a little strategic importance. Otherwise, third party engagement may lead to a lack of internal IS services as well as unintended losses off sensitive data or strategic know how. This conclusion is supported by the fact that a correlation between the spinning off rate and the industry of the corporations could be observed. Service corporations which are supposed to achieve competitive advantage through an effective use of information technology and systems, e.g. banks, insurance companies, and transportation firms<sup>7</sup>, spin off their IS support function more rarely than industrial companies or trading corporations.

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<sup>7</sup> See also McFarlan, F. Warren: Information Technology changes the way you compete. In: Harvard Business Review, Mai-June 1984, p. 101 and Porter, Michael E.; Millar, Victor E.: How information gives you competitive advantage. In: Harvard Business Review, July-August 1985, p. 153

Certainly, most of the described positive effects may also be achieved through adequate measures within a regular IS department and do not require an IS spin off. In contrast, a legally independent subsidiary provides a more compelling framework to overcome the listed managerial problems within the IS support function. IS spin offs seem to be useful in concluding third party business which leads to a significant know how transfer and a higher motivation for the own IS personnel. In addition, IS subsidiaries are more suitable platforms to perform IS cooperation like the development of joint systems with other corporations, software houses, or computer manufacturers. IS spin offs facilitate a management style that is similar to the management of other daughter firms within the group. Instead of a task orientation, the management style will become result oriented and reduces complexity for senior management.

However, these aspects do not obscure the fact that IS spin offs require the ability and the willingness of the IS personnel. Resistance of the IS staff as well as interventions by the works council or the union may endanger the implementation of an IS spin off. The transition from programmers to system sellers may also affect the success. IS subsidiaries in the third party business therefore need marketing concepts and qualified human resources.

The process of spinning off of the IS support function should occur systematically. First, the goals of the planned IS spin off need to be explicitly defined. The goals determine the scope of the spin off, the proportion of the intended third party engagement, as well as the capital investment of the mother corporation. A detailed business plan should be prepared containing the financial requirements, the desired customers, the variety of intended IS services, possible regulations, staffing, an estimation of prospected costs and revenues, and the work out of the contractual arrangements. In case of a intended third party engagement, a market analysis is recommendable. The affected IS personnel should be involved in time and measures should be taken to support the development of the personnel due to the transition.

The preparatory efforts seem to be enormous, especially when they have to be harmonized with the works council. But they are necessary to make an IS spin off comparable to other organizational options, like the organizational decentralization of the IS support function, the establishment of an internal profit center, or the outsourcing of the IS services. Otherwise, the costs, benefits, and risks of an IS spin off can not be adequately assessed and may cause a failure.

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