What Enables Effective Performance in Marketing and Sales? Fundamental Thoughts about the Concept of Competency and Results of a Correspondence Analysis

by

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Summary

In marketing research, there is a strong focus on organizational competencies, whereas literature concerning competencies on an individual level is relatively sparse with the exception of studies identifying the determinants of salesperson performance. As a profound knowledge of the various different components of an individual's competency possesses high relevance not only because of the costs of hiring and training efforts, but also because of the negative consequences of increased turnover, this paper centres on *competencies of individuals* working in different marketing and sales functions.

Building on the concept of "professional action competency", originating primarily from the theory of self-organization and evolution, and its application in a marketing and sales context, we investigate the competencies German employers require from three different occupational groups within the marketing and sales department: product managers, key account managers and sales employees. In this context, the results of a content analysis of 326 job advertisements reveal that job applicants are confronted with a total of 32 different competency requirements. It becomes evident that an individual's ability to communicate and his or her willingness to take the initiative are highly valued in marketing and sales. Furthermore, employers search for goal-oriented team players that not only possess significant work experience, but are also characterized by a high degree of customer and service orientation.

In order to generate additional insights into the phenomenon of competency in a marketing and sales context, a correspondence analysis was conducted as this multivariate exploratory technique enables us to display occupational groups and competency requirements in a single map, thus allowing a visual discovery and

interpretation of the relationship between occupational groups and competency requirements.

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1   Introduction

"Competencies have become an integral part of modern people management
throughout the world" (Bartram, Robertson, and Callinan, 2002, p. 6)

Since the beginning of the 1990s, the term 'competency' has been a catch phrase particularly in organizational literature (e.g. Hamel and Prahalad, 1994; Sanchez and Heene, 1997; Teece, Pisano, and Shuen, 1997). Nowadays, authors also acknowledge the key causal role of the people who make up the organization. As managers need a way of accurately assessing each individual's strengths, development needs and potential contribution to the organization's success, *personal* competencies have become increasingly popular in various research disciplines. This popularity is reflected in a range of generic practitioner models, such as PDI's PROFILOR or Lominger's Career Architect, and in numerous academic studies primarily aiming at identifying those competencies that distinguish successful from less successful managers (e.g. Boyatzis, 1982; Tett et al., 2000).

In marketing research, great emphasis has been placed on conceptualizing and quantifying those marketing capabilities that enable a company to achieve and maintain a superior competitive position. Whereas authors such as Snow and Hrebiniak (1980), Hitt and Ireland (1985) or Conant, Mokwa, and Varadarajan (1990) pursue a rather functional approach and derive a company's unique marketing capabilities from its specific marketing activities, Day (1994) adopts a more process-oriented view and distinguishes three different types of distinctive capabilities. At the one end of the spectrum are those capabilities which are deployed from inside out and activated by market requirements, competitive challenges, and external opportunities, such as manufacturing and other transformation activities. At the other end are the so-called outside-in capabilities, connecting those processes that define the other organizational capabilities to the external environment. Thus, the focal point of those competencies is almost exclusively outside the organization. Finally, spanning capabilities, such as strategy development, new product/service development or price setting, are needed to integrate the inside-out and outside-in capabilities.

With respect to *personal* competencies, researchers have mainly focused on identifying the different determinants of salesperson performance (e.g. Churchill et al., 1985; Rentz et al., 2002), whereas competency requirements in other marketing and sales functions have not been investigated systematically or at least not been verified empirically. Hence, literature concerning competencies on an individual level is relatively sparse in comparison to the high number of studies focusing on organizational competency and its different manifestations. This research gap is surprising, as a profound knowledge of the various different components of an individual's competency possesses high relevance with respect to basically all human resource management (HRM) functions in marketing and sales.

Consequently, this paper aims at broadening the knowledge about those competencies that enable an individual to perform effectively in varying marketing and sales functions and is thus an attempt to shorten the aforesaid research gap. As there is no clear common definition of competency, we first of all develop some conceptual thoughts about the concept of competency and give a short overview of the different purposes of competencies in HRM. In the remainder, we apply the concept of competency in a marketing and sales context in order to investigate and contrast the competencies German employers demand from three different occupational groups within the marketing and sales department: product managers, key account managers and sales employees. Based on the results of a content analysis of 326 job advertisements for the above-mentioned occupational groups, a correspondence analysis is conducted to show how occupational groups and competency requirements are related. Finally, we discuss the analyses' results as well as their limitations and derive implications for future research.

2   Conceptual Foundations of the Concept of Competency

2.1   Defining Competency

Although the concept of competency has gained rapidly in popularity over the last 25 years, there is still considerable confusion and disagreement about what competencies are and how they should be measured. According to Shippmann et al. (2000, p. 706) "the word 'competencies' today is a term that has no meaning apart from the particular meaning with whom one is speaking." As the concept of personal competency has been discussed ever since David McClelland initiated the competency movement as an alternative to previous approaches to measuring and predicting human performance in 1973, various definitions of competency have been developed. Whereas Boyatzis (1982) for example employs a *trait-based approach* to competency, interpreting a competency as an underlying characteristic of an individual which results in that person's effective and/or superior performance of a job, more recent definitions adopt a *behavioural view* of competencies, relating them to behavioural repertoires.

According to Bartram, Robertson, and Callinan (2002), competency can hence be defined as an individual's repertoire of capabilities, activities, processes and responses available that are instrumental in the delivery of the desired results or outcomes in a specific work context. It becomes evident that competency is not the behaviour or performance itself, but it is what enables performances to occur. Consequently, Kurz and Bartram (2002) allude competencies "to the behaviours underpinning successful performance; what it is people do in order to meet their objectives; how they go about achieving the required outcomes; what enables their competent performance" (Kurz and Bartram, 2002, p. 245).

Figure 1 shows that competencies can be related to performance in a simple causal flow model: An individual's behavioural repertoires predict skilled behaviours, which in turn predict job performance outcomes (Spencer and Spencer, 1993). It becomes evident that competencies always include an intent, a motive or trait force that actually causes action towards an outcome. To clarify their point of view, Spencer and Spencer (1993) cite the example that entrepreneurial behaviours, such as goal-setting, taking personal responsibility and calculated risk taking, result from an individual's strong concern with doing better against an internal standard of excellence and his or her concern for unique accomplishment, often referred to as 'achievement orientation'.

On an organizational level, these behaviours lead to a continuous improvement in quality, productivity, sales and other economic results as well as to innovation in the development of new products and services.
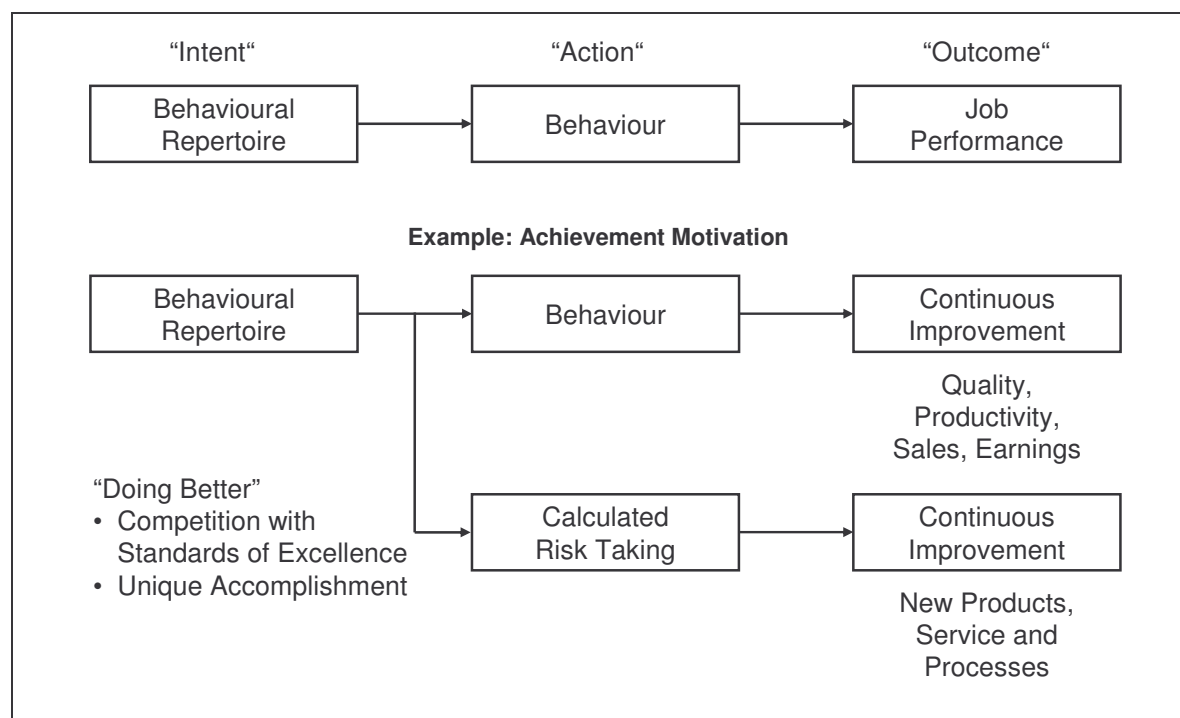

Figure 1: Competency Causal Flow Model (in dependence on Spencer and Spencer, 1993, p. 13)

In German-speaking countries, the most discussed and agreed upon approach aiming at clarifying the concept of competency is the concept of 'professional action competency', originating primarily from the theory of self-organization and evolution (Staudt and Kriegesmann, 2002). According to this behaviour-based approach, competencies are defined as an individual's set of interrelated dispositions or prepositions for certain forms of action that will in turn result in effective performance in the person's job (Erpenbeck and Rosenstiel, 2003).

Other than an employee's object-based qualification, competency is subject-based and can not be formally accredited and certified. Whereas an individual's qualification can be measured by external standards, competency can only be accounted for if an observable performance is provided (Arnold, 1997), implying that it can not be measured in isolation from a work context (Erpenbeck and Rosenstiel, 2003). Furthermore, in any work setting, there are factors that either

tend to facilitate (encourage) or inhibit (discourage) certain behaviours. Bartram, Robertson, and Callinan (2002) divide those situational factors into two types: *drivers* that act to encourage or increase the likelihood of desirable behaviours being elicited and *barriers* that act to reduce the likelihood of these behaviours occurring. Characteristics of the work environment that act as barriers to or drivers of an individual's ability to demonstrate competency range from physical and geographical factors, through provision of resources, to organizational culture and the patterns of formal and informal person relationships within the work setting. Thus, a comprehensive definition of competency not only has to take task-specific demands into account, but also has to incorporate the organizational environment in which performance occurs (Weinert, 2001).
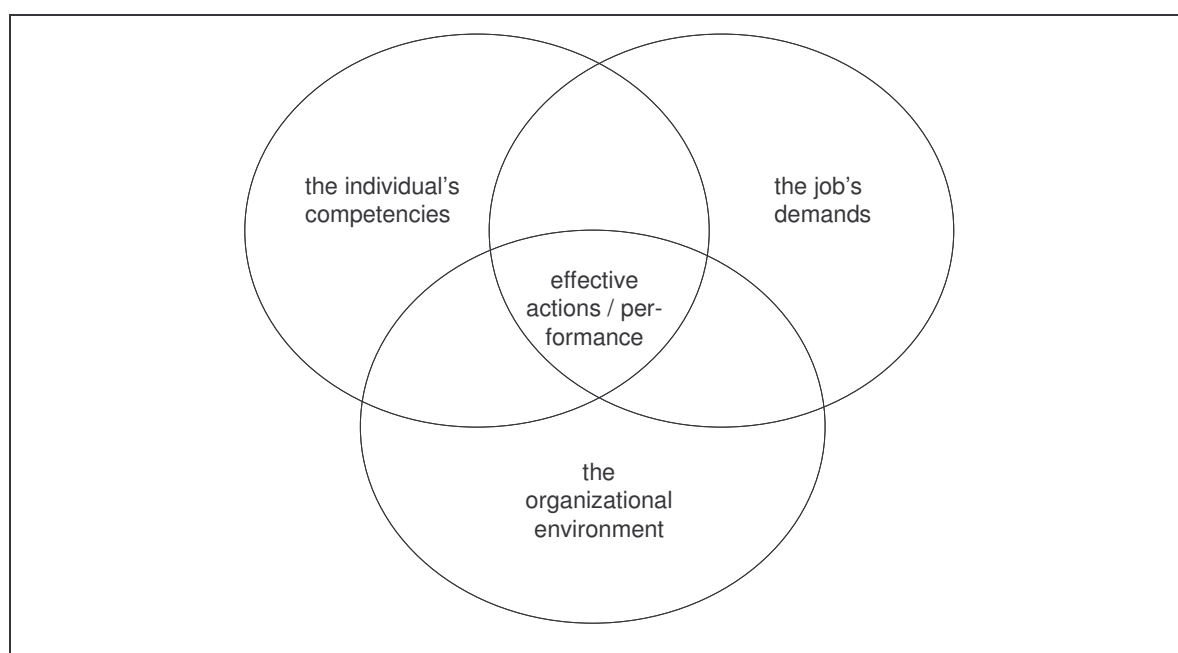
Figure 2: A Model of Effective Action (Boyatzis, 1982, p. 13)

Figure 2 illustrates that effective action, respectively performance, will only emerge if the different components of an individual's 'professional action competency' correspond with the job's demands on the person and the organizational environment; any inconsistency will result either in ineffective behaviour or inaction. In short, Figure 2 can be summarized as follows: Whereas the job's demands reveal primarily *what* a person in a specific job is expected to do, the organizational component primarily reveals *how* a person is expected to respond to the job's

demands. Finally, the individual's competencies component represents those capabilities that enable him or her to demonstrate appropriate specific actions; it reveals *why* he or she may act in certain ways.

Recapitulatory, we not only adopt a behaviour-based, but also a situationalist perspective to competency. In comparison to earlier definitions of competency (e.g. Boyatzis, 1982 or Spencer and Spencer, 1993), we thus take into account that behaviour is always a function of the person P and the situation S (Lewin, 1951).

2.2   A Componential Model of Competency

Attempting to make competency feasible as a construct, a wide variety of different taxonomies has been developed in the past. Building on the perception that competencies behave in different ways in terms of the individual and his or her environment, Erpenbeck and Heyse (1996) distinguish four main basic competencies:

- *personal competency*, comprising an individual's dispositions to act in a reflexive self-organized way, i.e. to assess him- or herself, to develop productive attitudes, values and self-images as well as his or her ability to develop and learn creatively,

- *socio-communicative competency*, containing those skills that are required for communication and cooperation within social interactions, thus describing an individual's dispositions to act in a communicatively and cooperatively self-organized way, i.e. behave in a group- and relationship-oriented way and to agree and disagree creatively with others,

- *technical-methodical competency*, referring to an individual's dispositions to act in an intellectually and physically self-organized way when resolving factual-objective problems. Thus, this category includes an employee's practical skills and knowledge necessary for mastering occupationally specific tasks in the workplace, but also adheres to his or her procedural skills and knowledge as well as the individual's ability to apply relevant working methods and techniques in different work contexts, and

- *activity-related competency*, needed to convert intentions into actions, comprising an individual's dispositions to act in an active and generally self-organized way as well as to direct this action at the implementation of intentions, schemes and plans.

Although those general high-level constructs can provide the basis for accounting for major portions of variance in performance, more finely grained constructs are required for the detailed competency profiling of jobs (Kurz and Bartram, 2002). Thus, a hierarchical approach to model building has become popular. For example, Tett et al. (2000) developed a taxonomy of 53 competencies mapping on to the following nine general areas: traditional functions, task orientation, dependability, open-mindedness, emotional control, communication, developing self and others, occupational acumen and concerns. A further example of this approach is seen in the framework developed by Bartram, Kurz, and Bailey (2000). The 110 component competencies that form the bottom tier of this three-tier structure can be clustered under 20 competency dimensions that can in turn be related to the top tier 'Big Eight' competency factors 'leading and deciding', 'supporting and cooperating', 'interacting and representing', 'analyzing and interpreting', 'creating and conceptualizing', 'organizing and executing', 'adapting and coping' and 'enterprising and performing'. Erpenbeck, Heyse, and Max (2000) propose a structure of 64 competencies mapping on the above-mentioned four main basic competency dimensions. Those 64 competencies were derived from the results of 150 experts sorting more than 300 behavioural elements and integrated into a so-called competency atlas. Other, nearly similar terms that can also be assigned to the four general components of 'professional action competency' were comprised in a synonym atlas.

Despite the existence of various different componential models of competency and despite the fact that the boundaries between the different behavioural categories are flexible, it nevertheless seems appropriate to use the competency atlas as a basis for collecting information about those competencies that are assumed to enable an individual to perform effectively in a marketing and sales context because of primarily two advantages. First, the four main competency dimensions are broken down to the point where no competency is subsumed by another competency, implying that the 64 component competencies represent the "building blocks" (Kurz and Bartram, 2002) for creating specific sets of competencies, respectively competency profiles.

Second, variables are defined that are quantifiable and can be formalized in different ways (cp. Heyse and Erpenbeck, 2004). Hence, the taxonomy developed by Erpenbeck, Heyse, and Max (2000) fulfills an essential precondition for the operationalization of competency in the sense of competency modeling.

2.3 The Purposes of Competencies in Human Resource Management

As there is still disagreement over the definition of a personal competency and against the background of various different componential models of competency, why have competency-based applications nonetheless gained such a strong foothold in human resource practice worldwide? Evidently, competency profiles and frameworks are seen to serve many different purposes, just to mention a few:

- A carefully designed and implemented competency-based recruitment and selection system ensures that the characteristics sought during the selection process are those that will actually enable new job holders to deliver the sort of job performance the organization needs to achieve its objectives. As the competencies identified are only those that affect job performance, a bias towards irrelevant characteristics (e.g. gender or ethnicity) is eliminated. Consequently, competency-based recruitment and selection systems are best focused on identifying the most suitable candidates for a job vacancy. Competency assessment methods include a variety of methods, such as Behavioural Event Interviews, tests, which measure one or more competencies, or assessment centers that provide simulation exercises requiring the test taker to generate behaviour (cp. Spencer and Spencer, 1993, pp. 242-254 for a more detailed explanation of competency assessment methods and their criterion validity correlations with job performance).

- The starting point of a competency-based development program is a comparison of an employee's actual competencies and the competency requirements of his or her present or future jobs. Gaps between actual competencies and competency requirements indicate training needs that can be met by specifically designed developmental activities.

- Competency-based pay systems can complement traditional systems and reward employees for developing certain competencies. This can be achieved by providing bonuses for development and demonstration of these competencies.
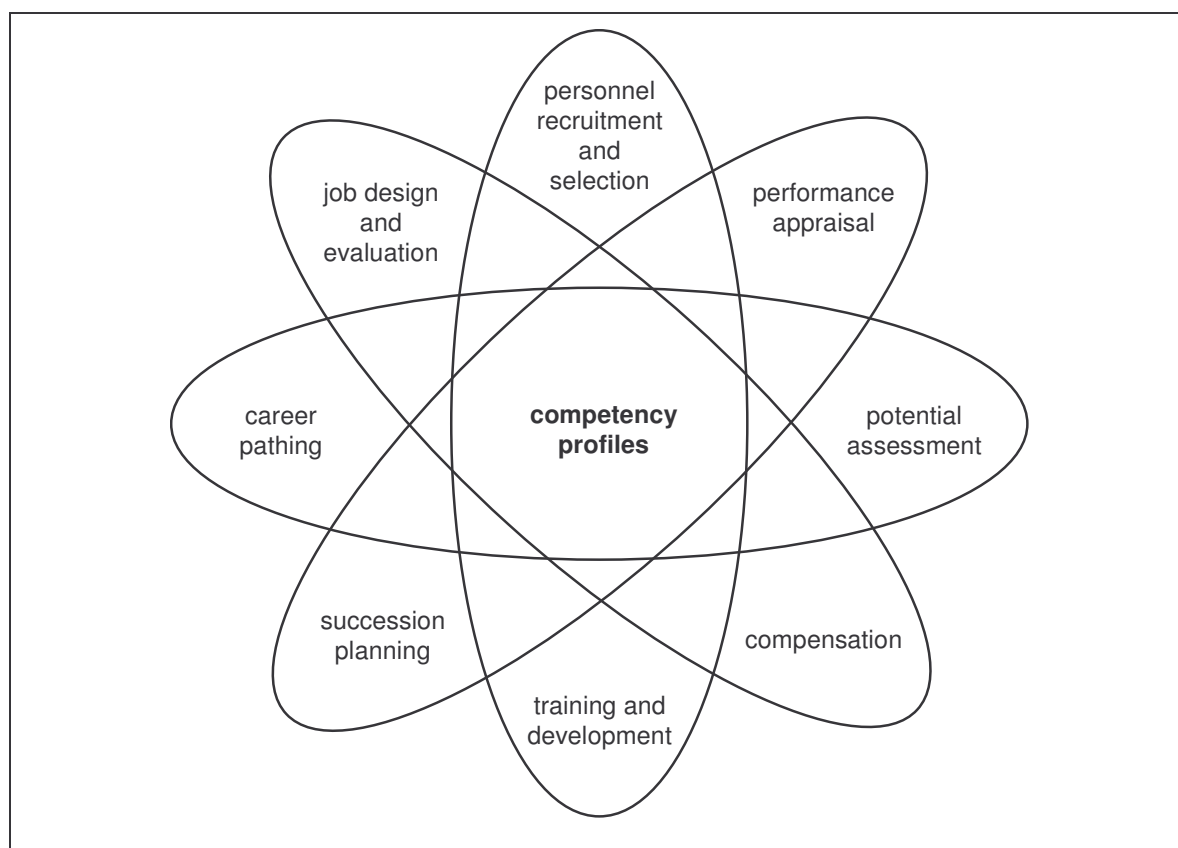
Figure 3: The Purposes of Competencies in HRM

Figure 3 illustrates that competency models lay the foundations for organization-wide human resources applications as they are a good core around which to build a logically interlinked set of human resource policies and techniques (Dalziel, 1992; Bartram, 2004). Competencies, then, offer a way of binding together and integrating the different elements of an adequate human resources strategy (Wood and Payne, 2000, p. 22):

"If you recruit people using a competency-based method, they and their managers can be given an indication of specific areas of strength and areas for development. This can link in to the performance management, or appraisal system, which in turn will provide evidence for succession planning, and even perhaps pay awards. Further

competency-based assessment when in role can provide more detailed evidence on which areas the person needs to develop."

Furthermore, competencies meet the need for increasingly sophisticated measures while remaining firmly linked to observable behaviour. Finally, they have given managers and their employees a common language for discussing development and career potential issues and a way to express the culture and values of the organization in terms of the behaviour expected of employees (Bartram, Robertson, and Callinan, 2002).

3 The Concept of Competency in a Marketing and Sales Context

3.1 Data Collection and Research Method

So as to obtain first insights into those competencies that differentiate between high and low performers in different marketing and sales functions, we decided to analyze the information contained in a high quantity of job advertisements addressing members of three different occupational groups. This proceeding not only allows us to gain immediate access to up-to-date competency requirements, but it also enables us to rule out selection effects that might occur in conjunction with written surveys because of non-respondents (Hall, 2004, p. 25). Thus, a distinctive advantage of content analysis over other methods is its unobtrusiveness, making it possible to collect and interpret readily available data without introducing any formal measurement procedure that might distort the information.

From mid-September to mid-October 2005, we identified 326 job advertisements published in two major German newspapers and on www.monster.de appealing to 67 product managers, 80 key account managers and 179 salespeople altogether. We focused on those three occupational groups mainly because of two reasons. First, the high number of job advertisements addressing members of those occupational groups in comparison to the number of vacancies in other marketing and sales functions in the above-mentioned period of time signifies their relevance for the marketing and sales department's success. Second, a simultaneous investigation of competency requirements in three carefully selected marketing and sales functions allows us to verify whether competency requirements in different divisions of the marketing and sales organization are indeed as heterogeneous as literature (e.g. Becker, 1995) and the different tasks of product managers, key account managers and salespeople suggest.[1]

Whereas product managers must have an excellent understanding of the entire spectrum of marketing tools and must be able to translate their knowledge into new marketing concepts, key account managers see themselves primarily as consultants to specific, precisely defined large

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[1] For a comprehensive description of the tasks of product managers, key account managers and salespeople, refer to Homburg & Krohmer, 2003, Gruner, Garbe, & Homburg, 1997, and Diller, Haas, & Ivens, 2005, respectively.

accounts. They are not only responsible for a wide variety of analytical tasks, such as analyzing the customer's situation based on development potential, markup, turnover and profits, but also for developing comprehensive strategic concepts to show their trading partner the economic benefit that can result from establishing a long-lasting business relationship (Konstroffer, 2004). We believe that both product and key account managers need to possess strong analytical and conceptual skills so as to fulfil their tasks. As product managers are liable for planning, coordinating and integrating activities of research and development, finance, accounting, production, distribution and marketing (Wood & Tandon, 1994), well-developed communications skills and the ability to work in a team are also advantageous. Key account managers on the other hand side should be characterized by a strong service and customer orientation as well as adequate negotiating skills and the ability to develop precise and easily understandable concepts and presentations.

With respect to sales employees, the sales management literature suggests a wide variety of qualifications needed for success in sales. According to a meta-analysis conducted by Vinchur et al. (1998), the Big Five factors, consisting of an individual's openness to experience, conscientiousness, extraversion, agreeableness and emotional stability, account for significant portions of variance in performance. In addition to results of earlier research into the determinants of salesperson performance, Rentz et al. (2002) conclude in their latest study that selling skills, defined as learned proficiency at performing tasks necessary for a sales job, are among the most important predictors of sales performance. Nonetheless, interpersonal skills, personal skills and technical knowledge are merely antecedents of performance:

> "Although skill is an antecedent of performance, highly skilled salespeople may or may not perform effectively, depending on other antecedents of performance. For example, without motivation, even an expert salesperson may perform poorly" (Rentz et al., 2002, p. 15).

In order to proceed systematically and so as to avoid major pitfalls of content analysis, we chose the taxonomy derived by Erpenbeck, Heyse, and Max (2000) as a starting point for assigning the competency requirements stated in the above-mentioned 326 job advertisements to the four main

competency dimensions determining 'professional action competency'. This taxonomy seems suitable not only because of its hierarchical structure, but also because it reduces the abundance of terms related to competencies to those competencies that can be clearly allocated to one of the four dimensions. Moreover, the 64 competencies contained in that taxonomy represent dispositions for self-organized action and thus follow the behaviour-based definition of competency presented earlier in this paper. To enrich the content's analysis descriptive results, a correspondence analysis was performed as this exploratory data analysis technique is suitable for plotting competency requirements and occupational groups in a joint low-dimensional space (Hoffman and Franke, 1986) and can therefore be used to analyze the relationship among occupational groups and competency requirements in greater detail.

3.2 Results

3.2.1 Content Analysis

After a thorough inspection of the information comprised in the 326 job advertisements included into the analysis presented here, we decided to extend the above-mentioned taxonomy by three terms in order to avoid a loss of information. Those three terms were: entrepreneurial thinking, negotiating skills, and autonomous and structured functioning.

Figure 4 displays the competency requirements that were identified by means of a descriptive analysis of the content analysis' results. To increase clarity, the graphical display is limited to those competency requirements cited in more than 15.0 percent of all job advertisements. Competency requirements that were referred to less often and thus seem to be of less importance are shown in Appendix 1. Altogether, 32 different competency requirements were mentioned.

Regarding the results depicted in Figure 4, it becomes clear that an individual's ability to communicate and his or her willingness to take the initiative are highly valued in marketing and sales. Furthermore, employers search for goal-oriented team players that are also characterized by a high degree of customer and service orientation. With respect to the requirement 'work experience' it has to be mentioned that Erpenbeck, Heyse, and Max (2000) interpret an applicant's previous work experience as a part of his or her technical-methodical competency, although this requirement could also be treated as a component of that individual's qualification.

In this context, Hellwig (2005, p. 5) points out that the term competency is not only increasingly used to describe workplace and learning requirements while the term qualification might be more appropriate, but that it furthermore seems to gradually adopt the meaning of qualification.
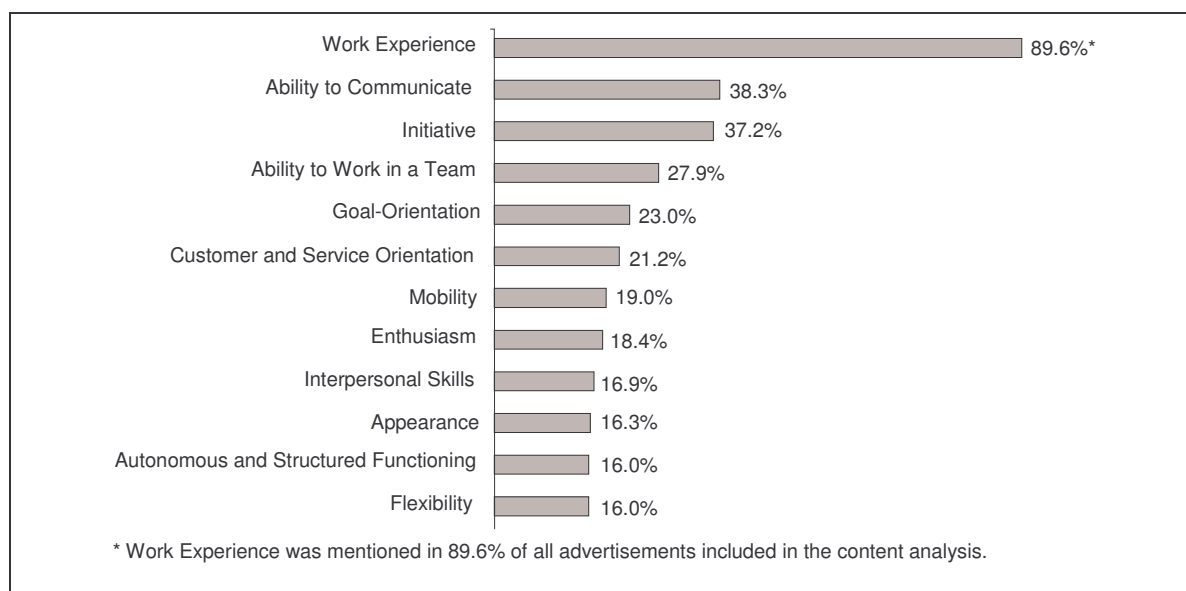
Competency	Percentage
Work Experience	89.6%*
Ability to Communicate	38.3%
Initiative	37.2%
Ability to Work in a Team	27.9%
Goal-Orientation	23.0%
Customer and Service Orientation	21.2%
Mobility	19.0%
Enthusiasm	18.4%
Interpersonal Skills	16.9%
Appearance	16.3%
Autonomous and Structured Functioning	16.0%
Flexibility	16.0%

* Work Experience was mentioned in 89.6% of all advertisements included in the content analysis.

Figure 4: Competency Requirements in the Marketing and Sales Department

3.2.2   Correspondence Analysis

3.2.2.1   General Information about the Method of Correspondence Analysis and its Application in Marketing Research[2]

In order to analyze the interactions between occupational groups and competency requirements, we conducted on a correspondence analysis. This multivariate technique can be used to reveal the structure and patterns inherent in a rectangular data matrix by factoring categorical variables and visualizing them in a joint property space (Greenacre, 1984). In comparison to other multivariate approaches for the joint display of a data matrix, such as multidimensional scaling and unfolding, correspondence analysis has several features that contribute to its usefulness to researchers. According to Hoffman and Franke (1986), correspondence analysis can not only reveal structural relationships among the variable categories, relationships that would not be detected in a series of pairwise comparisons, but it also enables the researcher to show *how* variables are related as it

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[2] For a comprehensive description of this method, computational details and its applications, refer to the classic text by Greenacre (1984).

produces two dual displays whose row and column geometries have similar interpretations. In addition to that, a distinct advantage of correspondence analysis is that it has highly flexible data requirements, enabling the researcher to gather suitable data quickly and easily.

From a methodical point of view, the starting point of a correspondence analysis is a contingency table, which in its simplest form consists of one row and one column variable and contains integer, non-negative cell values. It attempts to reconstruct the relationship between those variables by subjecting the row and column values in the data matrix to separate geometrical analyses and then combining the two configurations by means of a suitable algorithm, in order to map the variables in question in a space with as few dimensions as possible (Blasius, 1994; Greenacre, 1993). In a first step, a measure of distance between any two points is defined, where points correspond to the values of the discrete variables. The distance matrix resulting from this procedure then serves as the input to principal components analysis, just as correlation matrices may be the input for conventional factor analysis. However, conventional factor analysis and correspondence analysis differ in that factor analysis determines which variables cluster together where correspondence analysis determines which category values are closer together. This is finally visualized on the correspondence map, where points are plotted along the dimensions which emerge from principal components analysis of point distances.

In marketing literature, a variety of applications of correspondence analysis has been reported. Primarily, it has been used to detect relatively homogeneous groupings of individuals, aiding to the development of market segments (Green and Patterson, 1988), and in product positioning studies. For example, Herrmann and Huber (2000) apply correspondence analysis to connect different brand attributes to selected drivers of behaviour, such as utility components and individual values, and Whelan and Davies (2006) resort to correspondence analysis so as to illustrate the positioning of three types of brands against the five different dimensions of human personality.

3.2.2.2   Findings and Interpretation

Table 1 shows the data matrix that was input to the correspondence analysis in order to obtain a joint graphical display of competency requirements and occupational groups. In the case

presented here, the two dimensions shown in Figure 5 recover exactly the spatial variation or total inertia in the original data matrix as the full principal components analysis solution will yield (I-J) or (J-1) dimensions, whichever is smaller, where I and J are the number of categories of the two variables in the table (Backhaus et al., 2003).

Row	Column			
	Product Manager	Key Account Manager	Sales Employee	Margin
Acquisition Skills	2	9	11	22
Analytical and Conceptual Thinking	21	16	8	45
Etiquette	1	2	15	18
Enthusiasm	8	13	39	60
Resilience	10	8	15	33
Assertiveness	9	10	18	37
Initiative	25	28	68	121
Personal Responsibility	4	4	23	31
Goal-Orientation	11	17	47	75
Leadership Skills	4	2	1	7
Flexibility	11	9	32	52
Ability to Communicate	24	34	67	125
Interpersonal Skills	2	10	43	55
Creativity	15	7	6	28
Customer and Service Orientation	10	21	38	69
Mobility	14	23	25	62
Organizational Skills	4	7	14	25
Presentations Skills	12	9	7	28
Autonomous and Structured Functioning	6	17	29	52
Appearance	6	15	32	53
Ability to Work in a Team	25	26	40	91
Persuasiveness	6	12	32	50
Implementation Skills	12	10	11	33
Entrepreneurial Thinking	5	15	15	35
Negotiating Skills	4	15	25	44
Industry Knowledge	6	8	11	25
Product Knowledge	3	4	8	15
Market Knowledge	4	3	4	11
Project Management Skills	8	5	1	14
Marketing Knowledge	11	6	9	26
Technological Knowledge	7	12	17	36
Work Experience	61	75	156	292
Margin	351	452	867	1670

Table 1: Correspondence Table

In order to appoint the relative importance of the two computed dimensions, we decomposed the total inertia along the principal axes and determined the amount of inertia explained by each of the two dimensions. As each eigenvalue λ_t (shown in the column 'Inertia' in Table 2) indicates the weighted inertia explained by the tth principal axis of the display, the first principal axis (that always explains the most inertia) accounts for 85.0 percent of the total inertia whereas the second principal axis accounts for the remaining 15.0 percent. Hence, as already mentioned above, a two-dimensional depiction of the data in the correspondence table does not involve any loss of information.

Dimension	Singular value	Inertia	Chi Square	Sig.	Proportion of Inertia		Confidence Singular Value	
					Accounted for	Cum.	Standard Deviation	Correlation 2
1	,292	,085			,851	,851	,023	,068
2	,122	,015			,149	1,000	,024	
Total		,100	167,244	,000[a]	1,000	1,000		

a. 62 degrees of freedom

Table 2: Summary

The correspondence analysis map depicted in Figure 5 displays the three selected occupational groups and the 32 competency requirements identified by means of a content analysis in a single map, allowing a visual discovery and interpretation of the relationship between occupational groups and competency requirements. As symmetrical normalization standardizes on both row and column profiles, it is suitable for comparing two variables (that is competency requirements and occupational groups) and thus was applied in the paper presented here.

The two-dimensional display in Figure 5 shows the projections of the point profiles onto the plane, but does not indicate which points have had the most impact in determining the orientation of the axes. Thus, the inertia for each set of points was decomposed in a manner analogous to the decomposition of variance. The contributions of competency requirements to the inertia of each axis, in the columns headed 'Contributions of Points to Dimensions' in Appendix 1, indicate that analytical and conceptual thinking, creativity and interpersonal skills contribute essentially to the

direction of axis 1, whereas the second principal axis is defined by acquisition skills, and to a lesser extent entrepreneurial thinking. Similarly for the occupational groups, product managers define the first principal axis, whereas key account managers define the second one (Appendix 2).
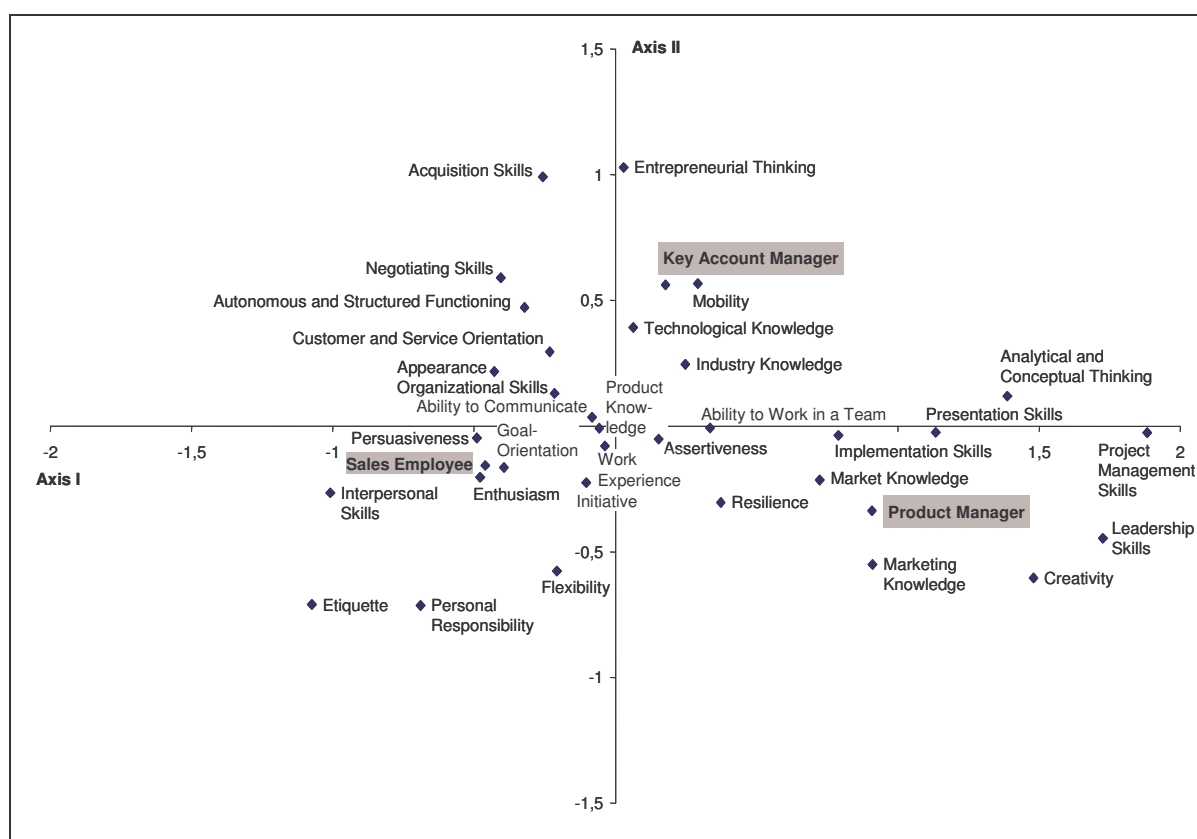

Figure 5: Two-dimensional Correspondence Analysis Map (Symmetrical Normalization)

Figure 5 furthermore illustrates that the three occupational groups are relatively far from each other in terms of the competency requirements that describe them. Concerning the relationship between occupational groups and competency requirements, one has to keep in mind that the map location of an occupational group represents a multivariate 'compromise' position in which the distances are not reliable precise indicators of 'closeness' of competency requirements to occupational groups. As a result, we have to limit ourselves to rather non-precise general statements, such as whether competency requirements and occupational groups are in the same quadrant or not. Thus, key account managers can be linked to the following competency requirements: entrepreneurial thinking, technological knowledge, mobility, industry knowledge,

and analytical and conceptual thinking. On the other hand, assertiveness, ability to work in a team, implementation, presentation and project management skills as well as resilience, market and marketing knowledge, creativity, and leadership skills are competency requirements associated with product managers. In addition to that, Figure 5 relates sales employees to the competency requirements persuasiveness, interpersonal skills, goal-orientation, enthusiasm, initiative, flexibility, personal responsibility and etiquette.

Points near the centre have undifferentiated profile distributions as a consequence of the origin placed at the center of gravity (Hoffman and Franke, 1986). Following Weinert (2001), we define those competencies as key competencies, implying that they are equivalent in their use and effectiveness not only across different functions within the marketing and sales organization, but also under varying demand conditions. Consequently, the competencies product knowledge, ability to communicate, work experience, assertiveness, and to a lesser extent initiative and organizational skills are considered essential not only for product managers, but also for key account managers and sales employees to participate effectively in the marketing and sales workforce.

3.3   Limitations

Although providing rich insights into the relationship between occupational groups and competency requirements, the analyses presented here do have some limitations. First of all, it has to be considered that they were solely based on the information presented in a multitude of job advertisements. As competency requirements *not* explicitly mentioned in those advertisements might still have a significant impact on an employee's performance within the marketing and sales department, the explanatory power of especially the correspondence analysis is restrained. Furthermore, no direct link between the gathered competencies and an individual's performance at work is measured or verified empirically- we just *assume* that those competency requirements mentioned in the 326 job advertisements actually enable an individual to perform effectively.

With respect to the content analysis presented earlier in this paper, we have to bear in mind that the issue of reliability may be further complicated by the inescapably human nature of

researchers (Gottschalk, 1995). We tried to minimize coding errors and to ensure intercoder reliability by measuring how well two separate coders reached the same judgements in coding the data and achieved satisfactory results. For all that, we still have to take into account that content analysis as an approach to drawing conclusions from textual data is inherently reductive. Thus, the method and its results are subject to increased error. Nonetheless, we believe that content analysis is appropriate for a first exploratory research into competencies in a marketing and sales context.

Regarding the correspondence analysis exemplified here, we yet have to evaluate this method's limitations. Despite the option of symmetrical normalization being designed for the purpose of comparing two variables, the distance between an occupational group and a competency requirement cannot be interpreted precisely (Greenacre, 1993). According to Hoffman and Franke (1986), this is due to the joint display of coordinates showing the relationship between a point from one set and all the points of another set, whereas the relationship between individual points from each set is not displayed. Consequently, we have limited ourselves to rather general statements and have been careful not to compare the between-set distances, i.e. the exact map distances of occupational groups and competency requirements.

4   Implications for Future Research

Recapitulating, the study presented in this paper can only provide some first information about competencies that might be linked to a marketing and sales force member's effective performance. In our opinion, three major implications for future research can be deduced:

First, conjoint derived profiles would enable researchers to understand employers' decision making processes better (Moy, 2006). This is due to the fact that conjoint analysis as an alternative diagnostic tool not only avoids the biases due to cognitive limitations, manipulations and impression management that are common in traditional, self-reported studies, but would also reveal the underlying importance values and trade-offs of competencies. Hence, despite its inherent disadvantages, conjoint analysis is likely to generate more accurate results and offer additional insights into the phenomenon of competency in a marketing and sales context.

Second of all, and even more important, the link between an individual's set of competencies and his or her job performance ought to be analyzed in greater detail and verified empirically. As a comprehensive definition of competency has to take the different contexts in which performances occur into account, the necessity to analyze the moderating effects of different situational variables on the interrelation between competencies and an individual's performance in his or her job becomes evident. Therefore, it seems worthwhile investigating whether competency profiles of individuals working in comparable positions in marketing and sales vary according to situational variables, such as the size of the organization, the company's corporate culture or the company's organizational competencies.

Finally, as the present paper is a single-country study focussing solely on competency requirements on the German job market, future research might also want to explore whether cross-cultural differences appear in relation to those competencies that enable effective performance in a marketing and sales context.

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Appendixes

Appendix 1 – Survey of Column Points (Competency Requirements)

Column	Times Mentioned	Mass	Contribution of Points to Dimensions	
			1	2
Acquisition Skills	22	.013	.003	.106
Analytical and Conceptual Thinking	45	.027	.178	.003
Etiquette	18	.011	.043	.044
Enthusiasm	60	.036	.028	.012
Resilience	33	.020	.009	.015
Assertiveness	37	.022	.002	.000
Initiative	121	.072	.003	.030
Personal Responsibility	31	.019	.030	.077
Goal-Orientation	75	.045	.024	.010
Leadership Skills	7	.004	.043	.007
Flexibility	52	.031	.005	.085
Ability to Communicate	125	.075	.002	.001
Interpersonal Skills	55	.033	.115	.019
Creativity	28	.017	.126	.050
Customer and Service Orientation	69	.041	.008	.029
Mobility	62	.0.37	.011	.098
Organizational Skills	25	.015	.002	.002
Presentation Skills	28	.017	.074	.000
Autonomous and Structured Functioning	52	.031	.011	.057
Appearance	53	.032	.020	.012
Ability to Work in a Team	91	.053	.021	.000
Persuasiveness	50	.030	.025	.001
Implementation Skills	33	.020	.042	.000
Entrepreneurial Thinking	35	.021	.000	.182
Negotiating Skills	44	.026	.015	.075
Industry Knowledge	25	.015	.003	.007
Product Knowledge	15	.009	.000	.000
Market Knowledge	11	.007	.012	.002
Project Management Skills	14	.008	.102	.000
Marketing Knowledge	26	.016	.044	.039
Technological Knowledge	36	.022	.000	.027
Work Experience	292	.175	.001	.009

Appendix 2 – Survey of Row Points (Occupational Groups)

Row	Mass	Contribution of Points to Dimensions	
		1	2
Product Manager	.210	.594	.196
Key Account Manager	.271	.029	.700
Sales Employee	.519	.377	.104