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ORIGINAL PAPER

# Organisational support: an empirical investigation into the effect of organisational support on the success of emerging market sourcing

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**Abstract** "Global Sourcing" has received a great deal of attention recently, as companies strive for new sources of competitive advantage in the face of increasing global competition. Alongside the undisputed role that supplier management plays in assuring sourcing success, organisational aspects can also be shown to play an important part in the field of global sourcing. This paper is a first systematic attempt to identify the factors that can successfully promote the execution of sourcing projects in "emerging markets". The success factors are derived from the literature of related areas of research. The analysis adopts an internal perspective, although external factors residing in the relationship with the supplier and the external environment are indirectly taken into account by incorporating research on project and innovation management—both very flexible approaches for highly uncertain environments. The findings allow the identification of clearly relevant success factors in sourcing from emerging markets and are integrated in a model designed to explain the impact of organisational support in this venture. The partial least squares method (PLS) is used to test the model on a set of 96 cases. The data originates from a survey of sourcing managers from Europe, mainly in the manufacturing and automotive industries.

**Keywords** Emerging market sourcing · Organisational support · Project management · Global sourcing

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## 1 The challenges of sourcing from emerging markets

Today, more than ever before, companies face increasing competitive pressure. This forces them to "internationalise" and continuously optimise their value added networks. In recent years, globally active companies looking to maintain and boost their competitive status have increasingly been entering into commitments in the markets of Eastern Europe and Asia, not just to exploit saving potentials in low-cost sourcing from there, but also to get access to new markets and profit for their products from growing demand in these regions.

In this context, experts and the business press speak of "emerging markets". The term was coined by the World Bank in the 1980s. In the literature it is often used interchangeably with "growth markets". The defining characteristic of those markets is the fact that they are in rapid transition–moving from the state of a developing country towards the state of fully industrialised nations. This condition of uncertainty and turbulence, and the presence of cultural barriers between the "emerging market" vendors and their "mature market" buyers complicate emerging market sourcing relationships. The strategic importance procurement activities in emerging markets have for the buyer company, but also the risks of the task are many times greater than in the case of procurement projects in established, mature markets.

It is not surprising, therefore, when 80% of purchasing managers polled in a survey conducted by Straube et al. [1] say that their emerging market procurement projects have not met the original cost reduction targets. Companies often overlook the fact that high-level up-front investment is needed to develop a suitable supplier base before it is possible to achieve the required quality [2, 3]. Alongside technological and developmental differences, the specific

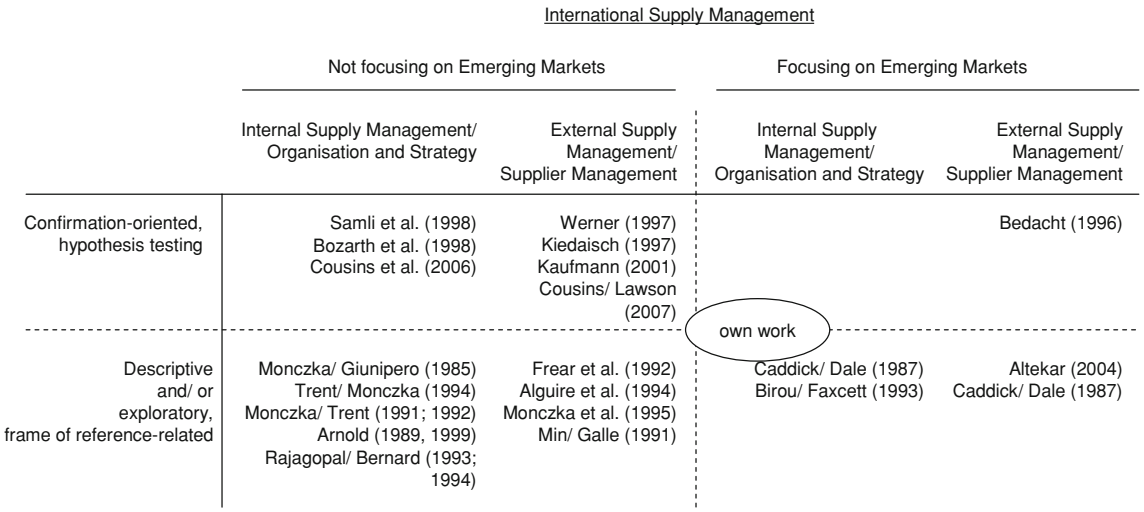


**Fig. 1** Positioning of own research in relation to existing knowledge in the area of international supply management

cultural characteristics of a supplier relationship in emerging markets greatly increase the complexity of supplier management in these markets. And all too often companies underestimate the cost of changing suppliers incurred if a relationship has to be abandoned. To meet the challenges of successfully building procurement processes in emerging markets an advanced level of organisational support is required [4].

Both the opportunities and the increased complexity of international procurement have long been recognized in the business management literature [5, 6]. Many of the older studies cover related topics such as: purchasing volumes [7], motives for and obstacles to international procurement [7–16], supplier management [17–20], organisational issues [13, 21] and the strategic integration of the procurement function [9, 11, 22–26]. But these studies, according to Quintens [27], are often of anecdotic-descriptive nature. When empirical data has been collected, the standard of data evaluation is primarily descriptive.

Some more recent studies do attempt holistic analyses of international procurement strategies and are seeking the causal factors behind successful procurement. But in most cases they are confined to established, "mature" procurement markets and focus on specific areas of the procurement process only [16, 19, 28–31].

Success factors that have been discussed in the past include the creation of long-term procurement relationships and the development of the required expertise [12, 19, 32]. In the case of procurement activities with an international scope, the importance of time for the development of relationships and financial resources is also emphasised [10, 33]. Knowledge of international business practices is also said to be of major importance in order to overcome cultural differences and to avoid communication problems [8, 10].

A categorisation of the procurement studies reviewed here by their focus on "emerging markets" (or the absence of such a focus) and by the approach taken to data analysis is suggested in Fig. 1.

As the figure illustrates, causal-analytical and confirmation-oriented, hypothesis-testing studies on procurement from emerging markets have been underrepresented to date [27].

This paper aims to make a contribution towards closing this gap. Specifically, it focuses on the identification and empirical validation of the determinants of procurement success in the buyer organisation, i.e. at the project and/or team level in the procuring company [34]. It is seeking new insights into the organisational factors that play a key role in successful procurement operations from emerging markets, because it is here, where management can intervene and recommendations for better management practice may be offered [26, 35].

## 2 Conceptual foundations and methodology of the research

### 2.1 Project character of emerging markets sourcing and the promise of project management research

In order to identify organisational factors that influence procurement success from emerging markets, one promising option is to conceptualise the task of the successful establishment of an emerging markets sourcing organisation as a project and make use of the insights provided by project management research: There is a high degree of correspondence between the characteristics of the task of the establishment of an emerging markets sourcing

organisation and the concepts of project management–as identified by DIN 69901:

There is a set of actors in the project organisation, i.e. the buyer and vendor companies involved in the sourcing process. The parties agree on clearly defined shared goals—to be derived from the buyer organisation's supply targets, such as the procurement of a quantity of specific goods at an agreed price and delivery [36] time in the agreed quality. All actions in the buyer–vendor relationship—whether aspects relating to supplier management or price reduction objectives–can be assigned to a specific procurement process from the point of view of the customer. The buyer company has personnel, financial and time-based resources at its disposal for the handling its procurement projects [37]. Assessment of the success of procurement is primarily based on the efficiency criteria of quality, meeting target dates promised, quantities, and cost-just as in any generic project management task [38].

Systematic work about the issues of project management has started in the 1960s. Today it can be described as being a relatively "mature" area of research. A large number of surveys and meta-studies, focusing on the critical success factors in projects and in the project management process itself, has been published since.

## 2.2 Identification and categorisation of potential success factors in emerging market sourcing

For the purposes of identifying potential success factors which are related to the success of procurement projects in emerging markets, and to formulate hypotheses about the relationship between those factors and project success, a review of literature was conducted in order to gain an overview of the success factors. The review included the fields of general procurement studies, of project management, and the field of innovation management. The reason innovation management research was included is that this is an area where project management and teamwork are of major importance [39]. With respect to project management research, the fundamental work by Pinto und Slevin [36, 40] and more recent studies were the primary sourced [39, 41–43].

This review of literature is based on the assumption that those factors that have been empirically confirmed through a wide range of different projects and project types may also be applied to procurement projects in emerging markets. One criterion for the transferability and application of prior insights to our research topic is that the factors selected are closely connected to operational project success. This means these factors can be directly influenced by a buyer company's management, and that they are of special relevance for success of sourcing activities in emerging markets under the specific conditions that prevail there.

For the purposes of this study, the large and diverse number of potential success factors identified in the project management and procurement literature review were assigned to three categories: factors related to top level management, factors related to the level of employees at the execution level, and factors related to the methods and tools available to sourcing management. Figure 2 provides an overview of those factors, which are discussed in more detail through the following sections of this paper.

### 2.2.1 *Potential success factors at the top management level*

The factors identified at the top management level include support from top management and the availability of resources. Closely related potential success factors are "project manager" as well as "realistic goals" and "goal changes and conflicts".

*Top management support* No other critical success factor to project management success has been confirmed as often by research as the importance of strong support from top management. The relevance of this factor can be attributed to three central aspects: the power and decision-making aspect, the resource aspect and the motivation aspect.

The realisation that decisions in organisations are by no means made strictly on a rational basis results in an emphasis on human aspects in research into organisational theory [44]. Behavioural organisation theory emphasises not just the bounded rationality [45] of decision-makers, but also and above all, power aspects in the process of decision-making.

According to Weber's classic definition, "power is that opportunity existing within a social relationship which

**Fig. 2** Key success factors derived from a review of the literature

| Top-Management | Employees | Methods |
|---|---|---|
| • Top-Management support<br>• Availability of resources (funds, staff size)<br>• Clear and realistic goals<br>• Absence of goal-changes and conflicts<br>• Skilled and motivated project-manager | • Skills/ especially cultural experience<br>• Commitment of employees<br>• Incentives for project team<br>• Autonomy of project team with respect to goals, resources and organization structure<br>• Intensive communication | • Maturity of project management methods regarding planning, steering and controlling<br>• Program management |

permits one to carry out one's own will even against resistance and regardless of the basis on which this opportunity rests" [46]. In line with this definition, top management possesses power, as it is in a position to concentrate sources of power, to create so-called "power bases" [44] and therefore carry out its will. Wolf discusses five central power bases: reward/punishment, legitimacy, attractiveness/identification, expertise and information. He says that the power to make decisions about resources is assigned to the first base by many authors, while others have—on account of the importance of this function–expanded it into a separate "theory of resource dependence" [44].

This means that a project often stands or falls with the commitment of top management, as only one member of this hierarchy level possesses sufficient power to push through trend-setting and resource-intensive decisions against resistance [47]. The decision to procure goods from growth markets often represents a change in strategy or direction which has to be forced through against numerous members of the organisation who are interested in maintaining the status quo [1].

Alongside policy-making power and the power based on the provision of resources, another aspect of the role of top management is its leadership role, as, due to its hierarchical status, this is the only level that possesses the required degree of legitimacy and recognition needed to motivate employees to tackle major challenges.

Employees measure the credibility of the leadership on the basis of actions taken, with this credibility being of particular significance when it comes to motivating employees in projects geared towards organisational change [48]. By allocating the appropriate level of resources, the leader must signal that his words on the importance of the project are followed by action in the form of prioritisation relative to other projects. Non-material, in other words purely rhetorical support from top managements in the form of "lip service" does not on its own result in increased employee motivation [42].

In this study, the factor "top management support" is of central significance due to the very special challenges presented by growth markets [1].

The model used here assumes that it is possible to show that the role of top management as a provider of resources means that top management has a direct influence on resources as well as, due to its leadership function, a direct influence on the commitment of employees.

Based on the discussion so far, the following hypotheses for procurement projects in emerging markets are formulated:

H1 Support from top management (top management support) positively impacts the availability of resources.

H2 Support from top management (top management support) positively impacts the commitment of employees.

*Availability of resources* The effect of resources is, firstly, that they are a necessary condition for project implementation and, secondly, that their presence underpins the demands and credibility of top management [42]. In older studies, resources are seldom part of the empirical analysis, while more recent studies in particular attribute the role of an independent success factor to resources [41, 42]. In his comprehensive review of the 44 different studies Lechler [39] identifies five studies that state a direct influence of the volume of available resources on success, and he describes their effect as undisputed. In his work, he comes to the conclusion that projects are to be managed in a situation-dependent way–in other words, in dependence on the context, and that resources in particular can help to mitigate conflicts.

With regard to the effects of resources on work psychology, studies in the field of organisational constraints (stress theory) have shown that the insufficient availability of resources can lead to negative emotional reactions among employees such as dissatisfaction, frustration and feelings of anxiety [47, 49, 50]. It is therefore reasonable to assume that the negative effects ascertained by stress research will not have a positive influence on the productivity and commitment of employees, at least in the long term.

In line with this view, the inadequate availability of resources would greatly reduce the probability of success of procurement projects, particularly in growth markets, which means that this factor is also of major relevance for this study. The following hypothesis is therefore derived for the further course of the study:

H3 The availability of resources positively impacts the commitment of employees.

*Clear and realistic goals* The meta-study by Fortune and White identifies realistic and clearly formulated goals as the second most frequently named success factor in project management after the "top management" factor [51]. In the area of international procurement, operational goals comprise the date-based, qualitative and quantity-based definition of a specific procurement object. Strategic goals in the field of international procurement, like the creation of local supply chains or the fulfilment of local content stipulations, are laid down by top management [1].

Moreover, Lechler [39] points out that the target definition has to be constantly laid down anew in an iterative

process and that it is difficult to distinguish it from the management functions of planning and control. Top management is thus synonymous with the goals it represents. In this study, therefore, the organisational responsibility for the clear-cut nature of the goal definition and the communication of this definition are seen as lying with top management, thus already a constituent part of the model.

*Absence of goal changes and conflicts* The influencing factor "absence of goal changes and conflicts" is closely related to support from top management and the resource situation. First, it is the job of top management to formulate realistic goals and thereby to avoid unnecessary and potential conflict-laden goal changes [39]. No matter how farsighted management may be, however, it is not possible to totally rule out goal changes. Still, an adequate availability of dedicated project resources can help to mitigate potential conflicts. In addition, sufficient resources can lend credibility to the words of the management and hence promote employee commitment [42].

As commitment is about congruence of the of the individual's values with those of the company and as a positive correlation between commitment and satisfaction as well as role clarity has been shown to exist [52], it can be assumed that a high level of commitment also helps to reduce the degree of conflict.

This factor is not included in the model due to its aforementioned content-based dependency on constructs that are already incorporated in the model.

*Skilled and motivated project manager* The comprehensive and methodologically advanced study by Lechler did not determine any statistically significant influence of the project leader on project success [39, 53]. A reason for this is seen in the fact that, in practice, even a motivated project manager often does not possess sufficient decision-making powers, with the result that his importance is considerably less than that of top management and the project team. For this reason, the project manager is not included in the model.

### 2.2.2 Potential success factors at the employee level

The success factors on employee level include the skills, experience and commitment of employees. Other potential success factors that were identified include incentive systems and the autonomy of the project team as well as good/intensive communication.

*Commitment of employees* Simply put, commitment is a feeling of belonging on the part of the employee vis-à-vis his employer ("attachment") [52]. The fundamental work of Mowday et al. [54] attributes an affective, emotional component and a behavioural component to commitment. Commitment expresses the degree to which the employee feels (subjectively) obligated towards the organisation or identifies with its values. Commitment also includes the willingness to work for the organisation and the probability that the employee will remain a "member" of this organisation [47, 52].

It is to be assumed that employees will have different answers to the question of their commitment to different objects, depending on whether the question addresses their relationship with the project team, with top management or with the company as a whole [47]. From the point of view of companies, the main point of interest is how to generate this commitment and to determine the variables to which it is related. This is an area where there is a particular need for further research [52]. To date, it has been possible to show that commitment among company employees can primarily be promoted by intrinsically motivating jobs and remuneration levels for their performance—or, alternatively, by the provision of high-level support from their superiors [52]. Where there is clarity of assigned roles, satisfaction with team colleagues and tasks that the individual sees as being important, positive correlations were found with the commitment of the individual [52].

Compared to character aspects of the individual, the prevailing conditions inside the organisation are seen as being the more important influencing factors when it comes to generating commitment [52]. Here, there is above all a positive connection to the perceived support from the organisation and to procedural justice [52].

There are very few empirical findings on the positive effect of commitment on performance or success [47]. Swailes [52] believes this is mainly due to the fact that researchers have previously geared their measurements to the reasons for commitment but not to commitment per se. He sees this in turn as being a result of the fact that management and research often have a different understanding of commitment, partly due to more deeply seated motivations that outsiders are frequently unable to recognise. According to Jex [47], commitment is primarily confirmed as being of relevance for the outcome if the motivation of employees played a key role in the task in question.

Swailes views commitment—which differs from the construct of motivation by virtue of its longer-term nature [55]—as a particularly critical success factor in cases where intellectual contributions are needed or where the willingness to perform is inseparable from the behaviour of the individual. The examples he names are quality management, the fulfilment of marketing plans, technology management and programmes of organisational change [52].

Due to the special challenges they entail, procurement projects in growth markets similarly require an equally

painstaking, methodical strategy, the will to accept change and an open mind towards other cultures; the aim is to establish good relations with the supplier [1].

The correlations with perceived support established in the literature support the previously postulated hypotheses stating that both of the variables "top management support" and "resource availability" have a decisive influence on the commitment of employees.

Based on the insights gained so far, it can be concluded that the commitment of employees positively impacts the success of procurement projects in emerging markets, which means we can formulate the following hypothesis:

H4 The commitment of employees positively impacts the success of procurement projects in emerging markets.

*Skills and cultural experience* The factor "experience" addressed below corresponds most closely to the construct of (job) experience discussed in the work psychology literature [56, 57]. According to Jex [47], the job experience of an individual or a team has to date and with few exceptions been used in many studies merely as a control variable or for descriptive purposes and its effects as an independent concept are still relatively unresearched. It was not until the work of Quinones et al. as well as Tesluk and Jacobs [57] that this variable was systematically developed into a comprehensive construct comprising not only a time-based dimension but also at least one qualitative component describing the skills acquired over time. Tesluk and Jacobs [57] additionally introduced "density" and "timing" to underline that the quality of the experience is key to the outcome and that the fact that time has passed does not necessarily mean that new skills have been acquired.

The positive relationship between the constructs of experience and job performance has already been empirically confirmed in numerous studies. The meta-analysis conducted by Quinones et al. [56] and comprising 44 studies showed an estimated sample correlation of 0.27, at the top end of the strength of the correlation as recorded to date [57]. Tesluk's hypothesis that as the complexity of the task to be performed increases the importance of qualitative experience accounts for an increasing share of the explained variance of performance [57] is particularly relevant for the topic area being examined in this study. By its nature, experience is gained over a lengthy period of time and is based on the tasks and challenges faced by the individual in his working life to date [58].

It can be considered undisputed that suitable skills have to present. In view of the wide variety of projects, it cannot be stated with certainty which skills these are and which ones are most important. For the area under review here, it is to be assumed that a certain level of skills relating to international activities and acquired in practice are required. In other words, these are additional social and generally cognitive skills that extend beyond the technical and commercial skills required for conventional industrial procurement projects, in particular the ability to understand and work with people from other cultural backgrounds [1]. Especially when the job involves dealing with cultural differences, it therefore appears logical to define long-standing experience in emerging markets as a factor that influences the success of procurement activities, resulting in the formulation of the following hypothesis:

H5 The experience of employees positively impacts the success of procurement projects in emerging markets.

*Intensive communication* In fourth place in Fortune and White's ranking of the most frequent research findings, we find the factor "good/intensive communication" [41]. This is indispensable for the success of interdisciplinary projects and is considered a quality indicator. This factor is closely related to the actors concerned. Consequently, good or intensive communication is seen as a "side-effect" of projects characterised by high-level management support and motivated employees [42]. As a result, it is more or less impossible in practice to survey the factor "communication" separately alongside "top management" and "employees". Lechler [39] also comes to the conclusion that a direct influence of the factor "communication" on the factor "conflicts" cannot be measured due to multicollinearity problems arising from the factor "project team". In view of the considerations outlined above, the inclusion of this factor does not appear meaningful.

*Incentives for the project team* Incentive systems are designed to motivate members of the project team based the project goals by offering material and non-material incentives [59]. There has been no comprehensive research into the influence of incentive systems to date [42]. As a result, this study does not take account of incentive systems. At the same time, however, the desired effect of incentive systems is indirectly incorporated via the factor "commitment".

*Autonomy of the project team* The literature on innovation management in particular focuses on the question of the extent to which a high level of autonomy of the project team improves the prospect of project success. A distinction is generally made between four perspectives: autonomy in the stipulation of project goals, resource autonomy, organisational autonomy and social autonomy [60]. As the research findings on the effect of the autonomy of the project team to date are quite contradictory [60], the autonomy of the project team is not directly included as a factor in the model for this study. The question of

organisational autonomy and resource autonomy is implicitly incorporated through the assumption of a project organisation for procurement (or its project character) as well as the factor "resources".

#### 2.2.3 *Potential success factors at the methods level*

The influencing factors on method level in the area of project management were identified as "project maturity" and "project management maturity"; these two factors will be looked at together due to the similarity of their content.

*Maturity of project and programme management* The category "methods" includes the factors "project management maturity" and "programme management maturity". This is taken to mean especially sophisticated and systematically applied instruments which are used to plan, manage and control projects or project portfolios in terms of time, content and funding. Whereas project management maturity can still be described as relevant for operational procurement success in growth markets, this is not the case with strategic programme management, and this factor is therefore excluded without further discussion.

With regard to the tools of project management, it has meanwhile been recognised that their importance should not be overstated, as their effect depends on the actors and the goals set for these actors. Dvir and Lechler arrive at the conclusion that unnecessary goal changes have a far greater effect on success than poor planning. Their succinct formulation: "Plans are nothing, changing plans is everything" [61].

However, this refers not to the total impracticability of plans but to their lesser importance compared to unnecessary goal changes of the kind encountered in all projects [61]. Due to the non-transparent environment in growth markets, these statements are particularly applicable to international procurement projects. According to this view, a plan is certainly important as a basis for information and action but is only of secondary importance due to the high level of uncertainty and complexity of the procurement projects and the resulting necessary flexibility of actors in growth markets—provided that the general project process and the content-based milestones have been defined.

The methodological influencing factors ascertained by project management research prove to be too specific for the challenges and the environment of procurement from growth markets and are not a focal point of this investigation of general organisational conditions; consequently, none of the factors in this area are included in the model.

The table (Fig. 3) provides an overview of the potential influencing factors identified in the literature and summarises the discussion and decision on their inclusion in the model for the study:

## 3 Design of a model

The diagram in Fig. 4 shows the model concept to be empirically tested in this study. The postulated effect relationships between the individual constructs are illustrated by the previously derived hypotheses.

## 4 Empirical evaluation

### 4.1 Survey design

The data set on which the study is based was assembled as part of a survey conducted by the Logistics Department of Berlin Technical University and the Logistics Institute Asia Pacific of the National University of Singapore for Bundesvereinigung Logistik e.V. The core target group of the survey were purchasing managers in industrial companies which procure a significant part of the purchasing volume in emerging markets.

The individual items in the questionnaire are derived from the relevant literature, operationalised in the form of a 5-point Likert scale and validated by experts using pretests. In the questionaire, the respondents have explicitely be instructed to focus their responses on the situation that they are facing sourcing projects from emerging markets. Following a few adjustments, the questionnaire was sent by standard mail and e-mail to around 1,500 purchasing managers in May 2006. A total of 105 questionnaires were returned, equivalent to a return rate of roughly 7%. This return rate is in the lower end of the range of return rates in the field of supply chain management research [62, 63]. Many researchers thus point out this to be a typical phenomenon for paper or internet based survey research in contrast to other methods of interview technique [64].

### 4.2 Sample description

Nine of the 105 returned questionnaires were considered worthless, as many of the sections had not been completed. After adjustment of the collected data, 96 returns were used for the study. Most of the surveyed companies were based in Europe.

The majority (80%) of these companies can be classified as big companies [65]. The remainder are small and medium-sized companies, with the latter accounting for around 10%. The overwhelming majority (90%) of sectors that took part in the survey correspond to the SIC classifications 35 "Industrial and Commercial Machinery and Computer Equipment" and 36 "Electronic, Electronic Equipment & Components, Except Computer Equipment" [66]. The remaining 10% are from the clothing industry or are service providers and specialised consulting companies.

**Fig. 3** Relevance of potential success factors for emerging market sourcing

| Factor | Authors (selection) | Relevance for Emerging Market Sourcing | Included in model | Comment |
|---|---|---|---|---|
| Top-Management Support | Ernst (2002), Quintens et al. (2006), Lechler (1997), Lechler (2000) | ++ | Yes | Supplies political will, power and resources needed for implementation |
| Availability of resources | Fortune/ White (2002, 2006), Ernst (2002), Anand et al. (2007), Quintens et al. (2006), Trent/ Monczka (2005) | ++ | Yes | Especially necessary in Emerging Markets, as it signalizes trust of as well as Top-Management buy-in |
| Clear and realistics goals | Pinto/ Slevin (1987; 1988), White/ Fortune (2002), Fortune/ White (2006) | ++ | No | Definition and communication of goals is Top-Management's primary task |
| Absence of goal-changes and conflicts | Dvir/ Lechler (2004), Lechler (1997, 2000) | + | No | Included through variables Top-Management support, employee commitment and resources |
| Skilled and motivated project-manager | Pinto/ Slevin (1987; 1988), Lechler (1997) | + | No | Top-Management and team commitment of greater relevance. Project manager shown to be insignificant (Lechler, 1997 #0) |
| Skills/ cultural experience | Quintens et al. (2006), Jha/ Iyer (2007) | ++ | Yes | Takes many years to build, difficult to acquire on the spot. |
| Commitment of employees | Jha/ Iyer (2007), Andersen et al. (2006), Trent/ Monczka (2005) | ++ | Yes | Needed especially in Emerging Markets due to complex situation |
| Incentives for project team | Lechler (1997, 2000), Trent (1998) Trent/ Monczka (1994), | + | No | Bears close relationship to commitment, practical application still rare |
| Autonomy of project team with respect to goals, resources and organization structure | Walter et al. (2003) | 0 | No | Of high relevance only with regard to resource level, though included in this regard through resources-variable |
| Intensive communication | Lechler (1997, 2000), Quintens et al. (2006) | ++ | No | Top-Management's task, but also a by-product of team commitment |
| Maturity of project management | Cooke-Davies (2002), Pinto/ Slevin (1987; 1988) | + | No | Ineffective due to high intransparency in Emerging Markets |
| Maturity of program management | Cooke-Davies (2002) | 0 | No | Of little relevance for relatively young field of Emerging Market Sourcing |

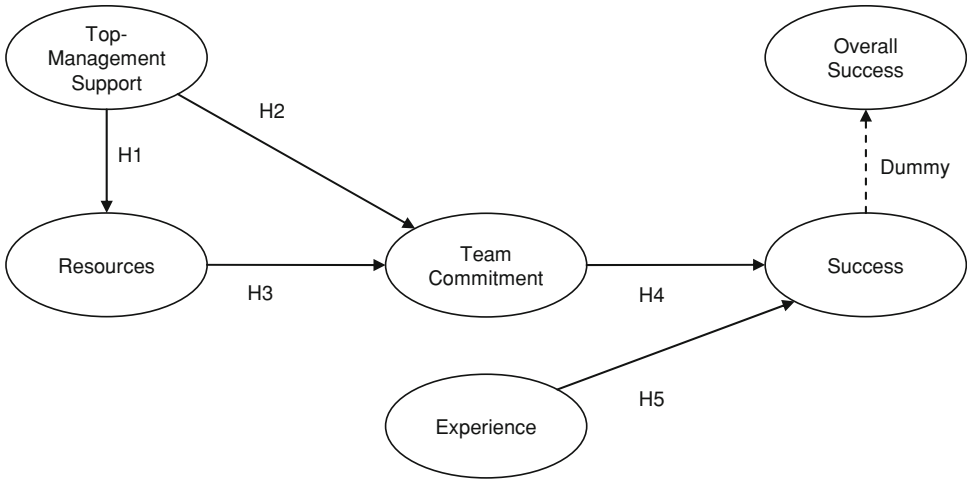


**Fig. 4** Proposed model of organisational support for emerging market sourcing

### 4.3 Methodology and results

The formulated model relationships are to be empirically tested based on the data set described above. Two approaches are distinguished for the assessment of causal models: covariance structural analysis, better known as the LISREL approach, and the variance-based partial least squares approach (PLS). The algorithms behind these methods differ in their objective goal, their optimisation properties, the consistency and precision of parameter estimates, the requirements in terms of sample size and the available quality measures. Detailed method comparisons can be found in, among other places, Herrmann et al. [68], Chin/Newsted [67] and Fornell/Bookstein 1982. PLS is seen in the literature as an explorative algorithm which is less restrictive in its assumptions than Lisrel. The big advantage of PLS is its suitability for generating estimates based on low sample sizes.

In view of the sample size of $N = 96$, it was decided to use PLS for the analysis, as sample sizes from $N = 200$ are recommended for covariance-based methods [67].

The application of PLS is also advisable due to the relatively immature research area [43] next to the hands-on research motivation. Although PLS is also considered suitable, it is preferable to test hypotheses with the aim of theory development [67]. Its strength, however, lies in the variance explanation of the goal variables. With this in mind, the aim is to identify in-house, decision-relevant success factors for sourcing projects in order to arrive at options for management action. In contrast, covariance-based methods are particularly suitable for the purpose of theory confirmation [68].

The software SmartPLS Release M3 was used for the analysis. The indicators specified in the quality test are partly issued in SmartPLS. This concerns the internal consistency, the average extracted variance and Cronbach's Alpha. Estimates are generated using the entire sample of $N = 96$ cases, the data are standardised by PLS, after missing values have been replaced by their mean values. The path weighting method is used for weighting purposes. Bootstrapping was conducted with $B = 500$ samples, blindfolding with an omission distance of 7.

In order to allow statements on the suitability of the sample size for analysis of the specified causal model, it is necessary to analyse the complexity of the model. To this end, the formatively specified variable with the highest number of indicators is identified. Equally, it is also necessary to find the latent variable with the highest number of relationships to other latent exogenous variables. The sample size used for assessment of the model should be around ten times greater than the number of indicators of the most complex formative construct or the number of relationships of the previously identified latent variables [67]. Our model does not contain any formative indicators, which means that only the endogenous construct with the highest number of paths is of interest. As the number of paths is only two, the resulting figure of $N = 96$ easily exceeds the minimum requirements for sample size.

In principle, the quality of structural equation models can be assessed on the level of the measurement model, the structural model and the overall model [68]. As, however, there is no global quality measure for models assessed using PLS, it is only possible to review the measurement and structural level using a catalogue of quality measures; due to the absence of distribution assumptions in PLS, these quality measures are non-parametric [67]. Operationalisation and model assessment will be performed using the measurement model as a starting point.

### 4.4 Conceptualisation of measurement model

The strategy for assessment of the measurement model is a formative or reflective model depending on its operationalisation. In a formative model, it is assumed that the manifest indicator variables causally generate their constructs as defining properties, while in a reflective model the construct is seen as a non-directly perceivable but independent variable with a causative effect on the strength of its indicators [69]. While formative indicators should not be perfectly correlated, reflective indicators should be highly correlated, as they ultimately all measure the same thing [69]. Whereas it is important in the case of formative operationalisation to ensure that the indicators are recorded in their entirety. Partial exchangeability of indicators can be assumed in principle in the case of reflective operationalisation [70].

In our model, all constructs are operationalised reflectively, as the underlying questionnaire items are either "abstract-global formulations" or can be seen as mutually correlated characteristics of one strategy [71]. In our case, the latter is assumed for the variables "success" and "resources". Operationalisation of the constructs takes account of the following content-based aspects:

- Sourcing success: indicators are the success assessments for the individual emerging markets specifying the degree to which procurement projects achieve their goal. The emerging markets under observation are seen as a group of homogeneous markets that can be clearly differentiated from developed markets. To test the assumption that this is a common success group, the structural model makes provision for a dummy variable in the form of an overall assessment of the success of procurement projects in emerging markets. If this assumption is verified, this global benchmark should clearly correlate with indicators for procurement success on market level [70].
- Top management support: assessment of the conduct of top management with regard to external impact (commitment) and effect on the team ("perceived support").
- Resources: assessment of the financial and personnel resources available to the team.
- Team support: assessment of the fundamental agreement demonstrated by the team and the commitment of the team to the project.
- Experience: assessment of the team with regard to experience in the field of international procurement projects in emerging markets

*Statistical evaluation of measurement model* On both indicator and construct level, the measuring model satisfies the criteria for reliable and valid operationalisation with minor limitations. On the level of the indicators, the loadings of three constructs are above 0.8, while the values for the two remaining constructs are still high at around 0.7. What is conspicuous, however, is the low loading (0.57) of the item "success in India" on the success construct. Nevertheless, the item was retained on content-based grounds; the literature only recommends adjustment

**Fig. 5** Quality statistics for the measurement model

| Indicator | Loading | t-value | AVE | Internal consistency | Cronbachs Alpha | $R^2$ |
|---|---|---|---|---|---|---|
| TopMgmtSupport1 | 0,83 | 7,65 | 0,76 | 0,86 | 0,69 | - |
| TopMgmtSupport2 | 0,91 | 25,23 | | | | |
| Resources1 | 0,87 | 22,82 | 0,80 | 0,89 | 0,75 | 0,178 |
| Resources2 | 0,92 | 47,92 | | | | |
| TeamCommitment1 | 0,87 | 20,48 | 0,78 | 0,88 | 0,72 | 0,394 |
| TeamCommitment2 | 0,89 | 38,64 | | | | |
| Experience1 | 0,79 | 11,80 | 0,57 | 0,89 | 0,85 | - |
| Experience2 | 0,83 | 12,79 | | | | |
| Experience3 | 0,67 | 6,25 | | | | |
| Experience4 | 0,75 | 7,16 | | | | |
| Experience5 | 0,68 | 7,25 | | | | |
| Experience6 | 0,77 | 8,35 | | | | |
| Success1 | 0,76 | 9,16 | 0,48 | 0,84 | 0,78 | 0,197 |
| Success2 | 0,78 | 9,67 | | | | |
| Success3 | 0,65 | 6,10 | | | | |
| Success4 | 0,53 | 3,70 | | | | |
| Success5 | 0,72 | 8,17 | | | | |
| Success6 | 0,66 | 5,72 | | | | |

**Fig. 6** Discriminant validity of latent variables

| | Success | Experience | Team Commitment | Resources | Top-Management Support |
|---|---|---|---|---|---|
| Success | **0,48** | | | | |
| Experience | 0,12 | **0,57** | | | |
| Team Commitment | 0,10 | 0,02 | **0,78** | | |
| Resources | 0,06 | 0,01 | 0,33 | **0,80** | |
| Top-Management support | 0,07 | 0,01 | 0,22 | 0,18 | **0,76** |

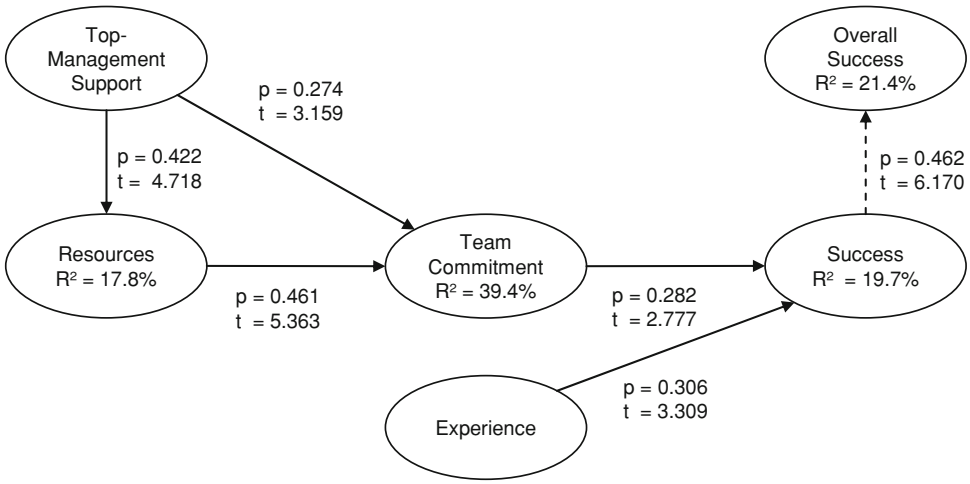


**Fig. 7** Results of empirical evaluation

of indicators below a value of 0.4 [72]. The *t* values are all significant ( Fig. 5).

The picture is similar on construct level: the average variance extracted (AVE) serving as a measure of construct reliability [73] is generally well above the required threshold of 0.5. The success variable is just below this threshold at 0.48. The threshold value for internal consistency and Cronbach's Alpha as further measures of construct reliability is fully met. At 0.69, the construct "top management support" is just under the standard threshold of 0.7. As, however, Cronbach's Alpha is dependent on the number of its indicators, values over 0.5 for just four or fewer indicators are a sound measure of reliability [74]. The Fornell-Larcker criterion for testing discriminance validity is satisfied for all constructs (Fig. 6).

*Statistical evaluation of the structural model* The central criterion for the assessment of the structural model is the coefficient of determination $R^2$ of the goal variables. This specifies the percentage of variance explained by the independent variables in the overall variance of the dependent variable [75]. Analysis of the path coefficients allows statements on the strength of the relationship between the constructs.

For the endogenous latent goal variable "sourcing success", the model supplies an $R^2$ of 0.19—a value that would be considered "weak" based on the frequently cited classification of Chin [76]. It appears more logical, however, to assess $R^2$ in the context of the research project [77]. In this way, the value of $R^2$ can be considered appropriate, as there are many external factors that also play a role in the success of sourcing projects, such as the implementation of a systematic system of supplier management [1]. Moreover, the path between procurement success on country level and the global measure of procurement success in emerging markets is well accentuated and highly significant, which means that the selected operationalisation can be classified as valid. The explained variance of the model-endogenous variable "team commitment", determined by the variables "top management" and "resources", can be described as "substantial" (Fig. 7).

In relation to the target variable "success", the most important variable is "experience" with a path coefficient of 0.31, followed by team commitment with a score of 0.28. In contrast, the variable "top management" has a marked effect on resources and team support with coefficients of 0.42 and 0.27. These figures suggest a mediating effect of the variable "resources" on the variable "team support" (Fig. 8)

All the relationships in the structural model are significant ($P < 0.05$). The values were tested using bootstrapping and one-sided *t* tests [78]. The importance of resources for support from the team and for the success of the project is clearly underlined by analysis of the effect

| Hypothesis | Independant variable | Dependant variable | Path-coeffizient | t-value |
|---|---|---|---|---|
| H1 | TopMgmtSupport | Ressources | 0,42 | 4,718 |
| H2 | TopMgmtSupport | TeamSupport | 0,27 | 3,159 |
| H3 | Resources | TeamSupport | 0,46 | 5,363 |
| H4 | TeamSupport | Success | 0,28 | 2,777 |
| H5 | Experience | Success | 0,31 | 3,309 |

**Fig. 8** Quality statistics for the structural model

| Dependant variable | Team Commitment | | |
|---|---|---|---|
| Independant variable | $R^2_{incl}$ | $R^2_{excl}$ | Effect size $f^2$ |
| Top-Management support | 0,394 | 0,338 | 0,092 |
| Resources | 0,394 | 0,229 | 0,272 |
| **Dependant variable** | **Projekterfolg** | | |
| Independant variable | $R^2_{incl}$ | $R^2_{excl}$ | Effect size $f^2$ |
| Resources | 0,197 | 0,112 | 0,106 |
| Experience | 0,197 | 0,141 | 0,070 |

**Fig. 9** Effect size for latent constructs

| Dependant variable | $O_i$ | $E_i$ | $Q^2$ |
|---|---|---|---|
| Resources | 192,00 | 165,23 | 0,14 |
| Team Commitment | 192,00 | 133,43 | 0,31 |
| Success | 576,00 | 522,95 | 0,09 |

**Fig. 10** Stone-Geisser criterion for predictive validity of endogenous constructs

size $f^2$: the value lies between the values of 0.15 and 0.35 suggested for average and high-level influence, respectively [79] (Fig. 9)

Moreover, the Stone-Geisser criterion $Q^2$ measured using the blindfolding procedure (omission distance of 7) also has a positive value, which means that both the measuring and structural models can be said to possess predictive relevance overall [68] (Fig. 10)

## 5 Discussion

The starting point for a discussion of the results so far is the realisation that there are major intra-organisational obstacles to the success of procurement projects in emerging markets in the form of a lack of support for project goals and the inadequate availability of resources [1].

The ideas on operationalisation of material resources are mainly based on the findings of success factor research to date in the field of classic project management. For this reason, both personnel capacity in the procurement projects and the availability of financial resources for this personnel are viewed as part of the project resources. The non-material resources are operationalised in the form of the experience of employees in the individual regions of the emerging markets. The importance of support for the project goals was investigated both on the level of employees and on the level of management.

The support of top management was shown to be a critical success factor (H1, H2) in the survey. The empirical findings support the hypothesis that a direct, significant relationship (H1; 0.42, $t = 4.718$) exists between management support and the availability of project resources.

Moreover, we were able to confirm the hypothesis that the available project resources have a major influence on the motivation of employees and their commitment to the support for procurement activities in emerging markets (H3, 0.47, $t = 5.363$). It was also shown that the perceived level of support from top management among employees directly impacts their commitment (H2; 0.28, $t = 3.159$).

It was assumed that the commitment of employees has a direct effect (H4) on project success. This was also confirmed by the empirical survey (0.28, $t = 2.777$).

On the one hand, this means that some companies fail in emerging markets because the employees confronted with the operational problems arising when procuring in emerging markets might not see the necessity of this way of procuring and therefore do not support the goals associated with the process. On the other hand, this finding underlines the importance of project resources (H3) and support from the management (H1, H2). Project resources therefore do play a key role in the success of procurement, and it is the responsibility of management to ensure that the necessary resources are available.

The authors were also able to confirm the importance of non-tangible resources, operationalised in this case by the experience of employees (H5; 0.31, $t = 3.309$). The empirical survey clearly showed that the experience of employees in procurement from emerging markets is a key success factor that has a direct positive impact on the success of the project.

## 6 Implications of findings

Today, the motivation for companies to enter into commitments in emerging markets are varied and—in the area of purchasing—they extend far beyond the simple desire to cut procurement costs. The developmental potential of emerging markets as potential fast-growing sales market is of particular significance, for example. As a result, commitments in emerging markets are of key strategic importance for many companies. Nevertheless, these commitments still present major challenges due to the differing framework conditions in the various markets. The aim of this study was to determine the influence of organisational and

motivational factors on the success of procurement projects in emerging markets.

Against the backdrop of procurement from emerging markets, it is possible to pool and integrate the identified success factors proven to be of relevance to form the "organisational support" construct. In view of the strategic relevance of procurement projects, this can be used as part of a targeted core competence and resource-based management approach to underline the importance of these projects within and outside the company by ensuring the appropriate availability of resources and a corresponding hierarchical position of this function in the company. Highly reputed experts in the field have long been calling for the systematic implementation of strategic priorities [4, 26].

We have been able to explore the basic influence of organisational support on the success of procurement projects in emerging markets. This underscores the fact that organisational support is a key element in all international procurement strategies of modern companies. This results in a need to take full account of methods and concepts geared towards increasing the level of organisational support within the company.

### 6.1 Limitations

A number of limitations were defined in the design of the study, and an awareness of these limitations is key to a proper understanding of the findings. Like all empirical studies, this study is subject to numerous such limitations—first and foremost with regard to its temporal validity, as the study basically provides a snapshot of international procurement in 2006/2007. According to Wolff et al. [80], the time-based constancy of "effect intensity and effect interaction" of the identified success factors can only be definitively determined by long-term and longitudinal surveys.

To investigate the phenomenon of non-respondents bias and to determine wether the relatively low response rate impacts the reliability of the overall results in the literature suggested approach to deal with the influence of non-respondents was followed [81]. Thus the sample was analyzed to explore the existence of differences in the responses of early and late respondents. Among the different groups no significant differences could be detected. Still the influence of non-respondents cannot totally be withdrawn as the assumption that late respondents reply more similar to non-respondents than early respondents is controversially discussed in the literature [81, 82].

Moreover, "common method bias", "key informant bias" and "unobserved heterogeneity" [80] can be named as potential distorting influences in any empirical success study. In view of painstaking operationalisation and validation by experts, these effects can be described as improbable, but they cannot be fully ruled out [65, 83].

### 6.2 Suggestions for further research

With regard to future research in the field of emerging market sourcing, it may naturally be of interest to first investigate the contribution of supplier management methods and concepts to the success of procurement projects in emerging markets, also using a quantitative study design. Building on this, the interplay of organisational support and supplier management in a holistic model is a topic of interest for future research in the area of emerging market sourcing. A region- or sector-specific analysis would provide even more detailed findings.

Moreover, the entire area of risk management in emerging market sourcing provides additional scope for future research projects. The initial challenges would be to define market-specific parameters for the relevant risks and to depict as accurately as possible a cost-benefit ratio for a solution region to be defined. Once more comprehensive findings are available in this research field, it will perhaps be possible to combine the fields of action of both risk dimensions.

In future, it may also be meaningful to combine the influences from other research areas like the development of company networks, the influence of environment and social consciousness on the business dealings of companies or changing framework conditions in the area of policy due to trade barriers, local content stipulations etc. with the research field of emerging market sourcing to provide greater depth of insight.

## Appendix

Figures 11, 12

| Authors | N | Geographical focus | Results |
|---|---|---|---|
| Pinto/ Slevin (1987,1989) | 159 | USA | 10 factors (PIP profiles ") for 4 project-phases |
| Belassi/ Tukel (1996a) | 91 | USA | Success factors: resources, Top-Management, client consultation, project manager |
| Belassi/ Tukel (1996b) | 57 | USA | Properties regarding project manager, team, project, organization, environment |
| Lechler (1997, 2000) | 448 | Germany | 16 secondary factors, reduced to 8 primary factors embedded in reference frame of context, actors, functions, process and outcome.<br>Success factors: Top management support, project manager, team, participation, planning / management, information / communication |
| Lechler (2000) | 448 | Germany and USA | "People Matter Most" |
| Dvir/ Lechler (2004) | 448 | Germany | Absence of goal changes |
| Cooke-Davies (2001) | 136 | EU, USA, Asia | 12 factors, including 8 for achieving project-mgmt success: Time / cost of project management maturity, maturity of risk management<br>4 factors to achieve project success (strategic. benefits) through coordination between line and project and portfolio and program management |
| White/ Fortune (2002) | 236 | UK | Success factors: realistic time schedule, adequate financial resources / resources, clear objectives, top management support |
| Nguyen/ Ogunlana (2004) | 109 | Vietnam | Critical factors: Project manager, financial resources, multidisciplinary team, commitment, resources are grouped to 4 equally important factors: comfort, competence, communication, commitment |
| Andersen et al. (2006) | 265 | Norway, China, France | Critical factors: communications, stakeholder endorsement, structured approach, commitment, stakeholders' early influence, accepted purpose, clear constraints, execution flexibility, influence extending over ongoing project success |
| Fortune/ White (2006) | Meta | global | 27 factors reduced to 9 areas: goals & objectives, performance monitoring, decision makers, transition, communication, environment, boundaries, resources, continuity and system inherent factors (including user / client involvement, change management) |

**Fig. 11** Results of the literature review

| Authors (cont.) | N | Geographical focus | Results |
|---|---|---|---|
| Jugdev et al. (2007) | 202 | USA, Canada | Project management maturity and knowledge transfer to achieve results, that are valuable, rare and are supported by the company (i.e that possess organizational support) |
| Hoegl/ Gemünden (2001) | 146 | Germany | Team performance as a critical success factor in 6 dimensions: communication, coordination, balance of member contributions, mutual support, effort, cohesion |
| Ernst (2002) | Meta | Development Projects | 5 dimensions: process, organization, culture, senior management / resources, strategy organizational factors: cross-functional team, strong leader, committed leader & team, intensive communication |
| Hoegl/ Weinkauf (2005) | 39 | EU | Interfaces management team in the concept phase.<br>Project structure and support in the development phase |
| Kandemir/ Calantone (2006) | 306 | USA, Canada, EU | Critical factors: human and testing resources<br>resources development & launch resources moderately effective for financial success |
| Gemünden et al. (2006) | 104 | EU | Positive: organisational collocation of teams<br>Neutral: resources autonomy, reporting<br>Negative: organisational separation; |
| Blindenbach-Driessen/ van den Ende (2006) | qual. | EU | In project-companies are particularly important: planning, project selection, top management support, experts, test and launch |
| Anand et al. (2007) | qual. | UK | Critical elements for the emergence of a new business area:<br>socialized agency, differentiated expertise, defensible turf, organisational support |
| Trent/ Monczka (1994)/ Trent 1998 | 107 | USA | 6 Model components that have positive effect on team success: Team Composition, tasks, targets, resources, decision-making authority, performance measurement and evaluation |
| Quintens et al. (2006) | Meta | global | Facilitators of Global Purchasing: product type, Top-Management support, knowledge of foreign opportunities, communication skills, type of industry,<br>Barriers: limited volumes, lack of resources, JIT- requirements, search for qualified suppliers, language and cultural differences |

**Fig. 12** Results of the literature review (continued)

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