

Entry Mode Choice: What do we really know about host country and home country influences?

ABSTRACT

The choice of a market entry mode, a crucial decision in the internationalization process, has been addressed by numerous empirical studies. The results are multifaceted, sometimes conflicting, and thus, difficult to interpret and review.

The presented meta-analysis summarizes empirical findings on external antecedents from previous research on the decision between wholly-owned subsidiaries and cooperative arrangements. By reviewing 61 studies on this decision, it is examined which influence factors on the decision have been investigated in primary research and which have a significant effect in the cumulative view of the previous results. The power distance index in the home country is shown to have a positive effect on the propensity to establish a wholly-owned subsidiary while increasing levels of country risk, legal restrictions, market size and market growth in the host country can be seen as antecedents of cooperative arrangements.

KEY WORDS

Market entry mode, Market entry strategy, Cooperative arrangement, Meta-analysis,

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1. Introduction

Since the beginning of IB research, the choice of a market entry mode has been considered one of the most important internationalisation strategy decisions (e.g. Wind & Perlmutter, 1977), because the entry mode determines the type and intensity of control over the foreign market activity, the necessary resource transfers as well as the associated risks (Anderson & Gatignon, 1986; Hill, Hwang, & Kim, 1990). Correspondingly, numerous empirical studies have addressed this topic (see the overviews by Sarkar & Cavusgil, 1996; Kumar & Subramaniam 1997). There is an “impressive body of work on the topic” (Madhok 1998, p. 260) and international entry modes are the third most researched field in international management (Werner, 2002).

While the extant research has provided valuable insight into the entry mode decision (Canabal & White, 2008), the results of previous studies are multifaceted, sometimes conflicting, and, thus, difficult to interpret and review. Two meta-analyses on the issue have been brought forward, but the first focuses on one specific explanatory theory, namely transaction cost theory (the study by Zhao, Luo, & Suh, 2004), the second on one specific variable, cultural distance (Tihanyi, Griffith, & Russel, 2005). Considering the vast amount of previous research and the complexity of the entry mode decision, this leaves many questions open.

Since the influence of the external environment on a MNC's strategy is a predominant question in IB research, we investigate the influence of external antecedents on the entry mode decision. We focus on the most often analyzed entry mode decision, the choice between a wholly-owned subsidiary (WOS) and a cooperative arrangement (COOP).

With this study, we would like to contribute to the research on determinants of the entry mode choice by integrating previous empirical research results in a meta-analysis for the purpose of creating generalizations (cf., e.g., Glass, 1976).

2. Sample and Method

Sample

The identification and collection of all relevant studies for a specific research question is the first step in a meta-analysis (Cooper & Hedges, 1994b). It is necessary to have the broadest possible database in order to avoid biased results.

For the present study, we used a three stage collection process: First, the most important journals in which international market entry modes are discussed were systematically searched issue by issue for up to the last 35 years (or the first journal issue, whichever was later). The journals analyzed were *Journal of International Business Studies*, *International Business Review* (from 1992), *Journal of International Management* (from 1995), *Management International Review*, *Strategic Management Journal* (from 1980), *Journal of Management*, *International Marketing Review* (from 1983), *Journal of International Marketing* (from 1993), *Organization Science* (from 1990), *The Service Industries Journal* (from 1981), *Journal of the Academy of Marketing Science*, *Academy of Management Journal* and *Academy of Management Review*.

In a second stage, the research database “Business Source Premier” was searched for studies. To account for the different terms used in the literature, a broad array of keywords was used (e.g. entry mode, entry strategy, entry form, market entry, joint venture, cooperation, wholly-owned subsidiaries, institutionalization, etc.).

Based on all studies identified in stages one and two, in a third stage we browsed all reference lists to find additional studies. Based on stages two and three, the sample was broadened, regarding the investigated journals and the investigated time frame.

In all, this procedure resulted in 156 articles that contained empirical findings on the entry mode decision. This seems to be a very comprehensive sample. For example, Kumar & Subramaniam (1997) evaluate their synopsis of fourteen studies on entry modes as a “comprehensive snapshot of the literature in this area” and Sarkar & Cavusgil (1996) consider 23 stud-

ies. The mentioned two meta-analyses are based on 38 studies (Zhao et al., 2004) and 55 studies (Tihanyi et al., 2005).

Looking at the gathered literature, it becomes evident at first sight that empirical research on entry modes is very fragmented regarding the classification of entry modes and on the entry modes analyzed in the studies. Studies focus, among others, on “export with own sales force vs. intermediaries in the host country” (e.g. Klein & Roth, 1989; Anderson & Schmittlein, 1984), on “export vs. FDI” (e.g. Kwon & Konopa, 1993; Agarwal & Ramaswami, 1992) , on “WOS vs. COOP” (which are dealt with in more detail later), on “wholly-owned subsidiaries vs. licensing” (e.g. Kim & Hwang, 1992; Davidson & McFetridge, 1985; Shane, 1992), on “wholly-owned subsidiaries vs. franchising” (e.g. Contractor & Kundu, 1998a; Fladmoe-Lindquist & Jacque, 1995), or on a multi-categorical classification of entry modes.

Furthermore, there is no commonly accepted categorization of market entry strategies. For instance, in studies on the decision between “high-control modes vs. low-control modes”, export is partly seen as a high-control mode (e.g. Pan & Tse, 1996; Shrader, 2001), partly as a low-control mode (e.g. Erramilli, 1991; Domke-Damonte, 2000). This heterogeneous underlying research questions in the primary studies makes an integration of the results across all studies impossible.

The most frequently analyzed decision in empirical studies is the decision between WOS and COOP, whereby COOP are equity-based or contractual. Since the theoretical arguments that are used to explain the decision do in most cases not distinguish between equity-based and contractual cooperation (at least not in their common characteristics that differentiate them from a WOS) we do not separate both forms in the subsequent analysis.

To define a more precise research question, we concentrated on external antecedents of the decision between WOS and COOP. We only consider cases in which the value-added processes are

dominantly in the foreign market, i.e. we do not consider export-based strategies. With this precision, a more detailed analysis and a quantitative review of the previous literature is possible.

Of the 156 articles that resulted from the first collection process, 57 articles with a sum of 61 independent studies were identified for this specific research question (see appendix and reference list). In these 61 studies, 168 different influence factors on the decision were examined and 503 coefficients concerning those influence factors are given. 14 of those are external antecedents of the entry mode choice that were investigated in at least 2 different studies, based on 135 coefficients.

Since the considered decision is binary (e.g. COOP = 0 vs. WOS = 1), the primary studies mainly apply multivariate binary logistic regression. The effect size is most often in the form of a regression coefficient B which represents a log odds ratio (e.g. Gatignon & Anderson, 1988; Kogut & Singh, 1988; Erramilli & Rao, 1993) which can be combined in a meta-analysis (Shadish & Haddock, 1994). Using beta coefficients from multivariate regressions as effect sizes in a quantitative synthesis is sometimes considered critical (Lipsey & Wilson, 2001), since beta coefficients are partial coefficients. Nevertheless, we used those coefficients for a number of reasons. First, by far the largest number of studies on our research question is based on multivariate methods, and the impact of missing effect sizes on the validity of meta-analytic conclusions is usually considered problematic. Omitting relevant effect sizes increases the sampling error, and potentially reduces the representativeness of the included studies, and thus, the generalizability of the estimates (Pigott, 1994). In narrative literature reviews, coefficients from multivariate methods are extensively used to support hypotheses. Second, and most importantly, Petersen & Brown (2005) demonstrate in an extensive study with 1,504 beta coefficients and corresponding bivariate correlation coefficients that the beta coefficients from multivariate regression analyses reveal a strong and robust linear relationship with the corresponding correlation coefficients. This finding strongly supports the option to use the present data in the context of a meta-analysis. Third, in our study,

we applied statistical tests of homogeneity for the study results of each variable. The Q-statistic indicated homogeneity for many of the variables. And finally, we applied an additional test to examine the adequateness of the coefficients of the meta-analysis: To test whether a systematic relationship between the number of regressors in the primary study and the effect size (i.e. the beta coefficient in the primary study) exists, a regression analysis between those two variables was carried out. A significant relation appeared only for one of the nine variables that we investigated (for industry concentration CONC). For the other eight variables, a significant relationship did not appear, and thus, a bias from using multivariate regression coefficients does not seem to emerge in our study.

Meta-analytical methods

To integrate the previous study results, we used several methods to enhance the validity of the aggregate finding.

First, for each variable, a *conventional vote-counting procedure* was applied. The number of studies falling into the positive significant, negative significant and not significant categories is simply tallied and the modal category is indicated as the most relevant for the aggregated finding. While this procedure has been criticized for several reasons, including low power, it is a quick way to get an overview over the results (Light & Smith, 1971; Bushman, 1994).

As a second method, a *binomial test* was applied to test whether the proportion of positive (negative) results in the population is significant (Bushman, 1994; Chetty & Hamilton, 1993).

A third method is based on Kulik, Kulik & Cohen (1980) and Kulik, Cohen & Ebeling (1980).

Kulik, Kulik & Cohen (1980) demonstrate the validity of a specific 4-point scale and use it when missing values in the primary studies pose a problem or the information given in the primary studies does not suffice to calculate standardized effect sizes. Adapting and refining their 4-point scale, we applied a 6-point scale and transferred all coefficients from previous studies to that scale. The scale values range in equidistant steps from -2,5 (negative coefficient, $p < 0.01$) to +2,5

(positive coefficient, $p < 0.01$) (see Table 1). This is an advanced type of a vote counting procedure (from now on referred to as “*VC scale*”). We applied this procedure by testing the significance of the mean of this VC scale across the different previous studies.

All vote-counting procedures have in common that they do not incorporate sample size into the vote and do not provide an effect size estimate. Thus, in a fourth method, we combined the effect sizes from the previous studies into a *common estimate of the effect size* (Shadish & Haddock, 1994; Lipsey & Wilson, 2001). To combine effect sizes, either fixed-effects models (FEM) or random-effects models (REM) can be used (Cooper & Hedges, 1994a). These procedures are considered “the more powerful methods of meta-analysis” (Chetty & Hamilton, 1993), and the aggregation of the previous study results is weighted by their precision. The sample size is used indirectly via the inverse variance weights. For each variable, we calculated the Q-statistics as a test on homogeneity (Lipsey & Wilson, 2001). A non-significant Q-test (i.e. homogeneity) indicates that a FEM can be applied, while in the case of a significant Q-test (i.e. heterogeneity) literature recommends the use of a REM as a possible consequence (Shadish & Haddock, 1994; Cooper & Hedges, 1994a). In Table 2, it is indicated for each variable, whether homogeneity or heterogeneity was assumed as a result from the Q-test.

However, the high requirements on the information given in the primary studies that must allow to calculate standardized effect sizes and standard errors, usually reduces the number of studies to be integrated in this fourth method from the total population. This can be seen as a disadvantage. Furthermore, it has to be verified that the selection of studies which provide sufficient information for the combination of the effect sizes is not obviously biased from the total population.

3. Investigated potential antecedents and expected direction of effect

As external antecedents, we consider the mentioned 14 variables which are mainly host-country specific factors but also include two home-country specific factors (two facets of the

home country culture). For all of those variables we will first shortly describe the theoretical direction of influence that can be expected before we give an overview of the empirical results and the aggregate finding.

Cultural distance (CULTDIST)

The predicted effect of cultural distance between home country and host country on the entry mode choice is ambiguous (see the discussion by Madhok, 1998 and Tihanyi et al., 2005).

From the perspective of organizational capabilities, it is argued that the capabilities and competence of a company are strongly rooted in the home country (Kogut, 1988). The transfer of context specific capabilities to a host country with high cultural distance is difficult and linked to high learning costs. Consequently, companies might prefer a cooperative strategy in this situation (Madhok, 1998; Contractor & Kundu, 1998a).

But considering the absorptive capacity of a local partner in the host country, it is also likely to be lower in the case of high cultural distance. Thus, a partner might face difficulties in applying the company's know-how effectively and the exploitation of a firm-specific advantage might be less effective in cooperation in this situation. From this perspective, a company might prefer to exploit its firm-specific advantages internalized in a situation of a culturally distant country (Madhok, 1998; Kogut & Singh, 1988; Kogut & Zander, 1993).

Similarly, transaction cost reasoning might lead to controversial predictions. The more efficient monitoring of internalized foreign activities (Padmanabhan & Cho, 1996; Chen & Hu, 2002, S. 197; Anand & Delios, 1997; Zhao et al., 2004; Tihanyi et al., 2005), that permits to transfer other company-specific advantages (e.g. reputation or tacit knowledge) more efficiently and that should help to compensate the liability of foreignness resulting from a high cultural distance (Mahnke & Venzin, 2003, p. 130, and referenced literature) would predict a WOS. However, the shared risk in the case of an unfamiliar environment would lead to a

COOP (Erramilli, 1991; Gatignon & Anderson, 1988; Kogut & Singh, 1988; Tihanyi et al., 2005).

Country risk (RISK)

In the case of a higher country risk, transaction cost reasoning would imply a higher level of vertical integration to absorb the external uncertainty. In such a situation, external transactions are costly to govern and the market is more likely to fail (Williamson, 1985; Klein et al., 1990; Contractor & Kundu, 1998). However, the external uncertainty is also likely to reduce the propensity to commit resources to a country. Companies that are faced with uncertainty are usually attempting to choose organizational forms that leave many options open and that enhance flexibility (Anderson & Gatignon, 1986; Zhao et al., 2004). From the perspective of the resource-based view, a high country risk implies the need to protect a company's resources, thus, the avoidance of ownership strategies (Agarwal & Ramaswami, 1992; Contractor & Kundu, 1998, p 33).

Legal restrictions (RESTRICT)

Legal restrictions for WOS are logically seen to reduce their likelihood (Yiu & Makino, 2002; Brouthers, 2002; Gatignon & Anderson, 1988; Gomes-Casseres, 1990; Delios & Beamish, 1999). Legal restrictions either reduce the alternatives for companies, e.g. when WOS are prohibited (Delios & Beamish, 1999, Gomes-Casseres, 1990, Gatignon & Anderson, 1988; Roberts & Greenwood, 1997). Or subsidies and incentives for cooperative arrangements (with local partners) and restrictive regulations in the host country towards WOS change the economic advantages of the considered alternatives towards cooperative arrangements.

Income level (INCOME)

Many articles investigate an influence of the income level of the host country but the underlying arguments and the hypotheses are heterogeneous. Some authors consider INCOME as an

indicator for the competitive intensity in the market and the level of qualification of the local companies. With increasing levels of income and development, local companies gain experience. Thus, local partners become more valuable and a cooperative arrangement might be more likely (Gomes-Casseres, 1989). The organizational capabilities perspective expects a higher absorptive capacity of local partners in higher developed countries that facilitate the know-how transfer to a cooperation partner (Contractor & Kundu, 1998, S. 35). Based on transaction cost reasoning, Contractor & Kundu (1998) argue that higher income countries usually provide a better protection of brands and intellectual property rights and consequently an increasing income level would reduce transaction cost. This would make cooperative strategies relatively more efficient.

On the other hand, a higher income level indicates stable economic conditions and a high market potential (Benito, 1996). If GNP or GDP per capita are seen as a proxy for market size or market attractivity (Davidson & McFetridge, 1984; Baek, 2003; Erramilli, Agarwal, & Kim, 1997), this would imply the decision for a full ownership (Benito, 1996; Erramilli et al., 1997).

Delios & Henisz (2000) expect that a higher income level increases the similarity to the home country (which in most studies has a rather high income level). Thus, a higher income level would reduce the internal uncertainty and the information asymmetry versus local companies. Similarity would facilitate the internal exploitation of firm-specific advantages (Erramilli et al., 1997) and, thus, a higher income level would make a WOS more likely.

Market size (MSIZE)

Most authors argue that increasing market size would lead to an enhanced resource commitment in the country, i.e. be positively related to internalization (Ekeledo & Sivakumar, 1998; Agarwal, 1994; Davidson & McFetridge, 1984; Erramilli et al., 1997). A larger host country market implies that companies can expect a higher return on internalization, because – as it is

argued – a high proportion of the cost of a WOS in the foreign market are fixed, thus, increasing market size would increase the profitability of internalization (Buckley & Casson, 1996; Agarwal & Ramaswami, 1992; Agarwal, 1994; Chen & Hu, 2002). Considering transaction cost theory, market size could be seen as a proxy for the transaction frequency which would also lead to a higher likelihood of a WOS (Williamson, 1985).

Market growth (MGROWTH)

In many studies, market growth is seen as an indicator for market attractiveness (e.g. Chang & Rosenzweig, 2001) which is expected to lead to enhanced resource commitment in a country (Brouthers, 2002), thus, to a WOS.

However, from the perspective of organizational capabilities, it would be recommended to enter fast growing markets via cooperation. Since external learning is considered faster than internal learning (Madhok, 1998), a strategy without a cooperation partner would result in high opportunity costs in the case of a very dynamic market (Hennart & Reddy, 1997; Chang & Rosenzweig, 2001; Cleeve, 1997).

Industry concentration in the host country (CONC)

The effect of the industry concentration on the entry mode decision is investigated in literature from different perspectives. Primarily, the case of a wholly-owned subsidiary via acquisition is considered and it is argued that in the case of high concentration a host country government is likely to favour cooperation over an acquisition (Hennart & Reddy, 1997). At the same time it is expected that the competitive reaction to a new market entry is stronger in the case of concentrated markets (Knickerbocker, 1973; Singh & Kogut, 1989; Hennart & Larimo, 1998) and consequently a high market concentration constitutes a market barrier (Chang & Rosenzweig, 2001), reducing the likelihood of the establishment of a WOS. Singh & Kogut (1989) argue that a high market concentration would render acquisitions more

costly, since the price for the acquisition is based on future profit expectations that would be higher in an oligopolistic market. From this perspective also, increased concentration would favour a cooperative strategy.

On the contrary, considering transactions costs, a high market concentration could lead to the situation of “small-number bargaining”. Relative to more competitive markets, the danger of opportunistic behaviour of an external partner would increase in this situation. This, in turn, would lead to higher transaction costs of cooperation compared to a hierarchical governance mode (Gomes-Casseres, 1990; Hennart & Larimo, 1998). Thus, TCA would suggest a positive influence of industry concentration on the likelihood of a WOS.

Market attractiveness (MATTRACT)

The attractiveness of a market (often defined as a combination of market size and market growth) is seen to enhance the willingness of a firm to establish a WOS. Countries that are characterized by high market attractiveness are seen to have greater ability to absorb additional capacity, providing an opportunity to improve firm efficiency. In markets with high market attractiveness companies are expected to use vertical integration so they can gain economies of scale and establish a long-term market presence (Brouthers, 2002; Agarwal & Ramaswami, 1992). A high resource commitment is seen to provide the greatest potential for long-term profit (Randøy & Dibrell, 2002). Also, the potential risks associated with shirking are higher in attractive markets, enhancing the benefit of internalization (Gomes-Casseres, 1990; Taylor, Zou, & Osland, 1998).

On the other hand, bargaining power theory suggests an opposite effect. The more attractive the foreign market, the higher the bargaining power of the host country government. Host country governments are expected to favour cooperative arrangements with local partners and their power to enforce these entry modes increases with the market attractiveness (Lecraw, 1984).

Volatility of demand (VOLATIL)

Volatile demand, as a part of the environmental conditions, increases the external uncertainty surrounding a transaction. Such uncertainty compels companies to choose a flexible entry mode rather than a WOS in order to reduce the operational risk associated with demand variability (Zhao et al., 2004; Elango & Sambharya, 2004). In this situation, a company may also be unwilling to invest substantial resources in the country (Kim & Hwang, 1992).

The difficulty of accurately forecasting the capacity requirements increases cost (Geyskens, Steenkamp, & Kumar, 2006). A steady utilization of capacity is therefore important for cost efficiency. Thus, when demand occurs infrequently or fluctuates substantially, it is unlikely that the fixed costs associated with the vertical integration of the activities can be justified (Anderson & Weitz, 1986). A cooperation partner in the foreign country might add his own demand and maybe diversify. In this case, the partner might distribute fixed costs over a larger volume and compensate for demand fluctuations. Generally, this could ensure a smoother, more cost-efficient utilization of capacity (Heshmati, 2003). In all, these arguments indicate a clear negative effect of demand volatility on the propensity to establish a WOS.

On the other hand, transaction cost reasoning leads to an opposite conclusion. The external uncertainty makes it expensive to use low control entry modes and, thus, transaction cost theory suggest that firms will guard against high transaction costs by internalizing the transaction (Taylor et al., 1998).

Trade barriers (TRADBARR)

The arguments concerning the openness of a host country for foreign imports are two-sided. On the one side it is argued that trade barriers may accelerate a need for rapid entry (Chang & Rosenzweig, 2001). In this case, an entry via acquisition into a WOS is seen as a fast entry mode which helps to overcome the trade barriers.

However, trade barriers should result in a lower share of imports in a market. And the market share of imports in a host country can be seen as a factor that encourages a high resource commitment. Foreign entrants are more confident in succeeding in a market, considering the fact that they or other foreign firms have had some degree of success selling their products in the host nation (Elango & Sambharya, 2004). The experience gained via trade should also lead to a higher propensity for WOS relative to cooperative ventures (Singh & Kogut, 1989).

Competitive intensity in the host country (COMP)

In markets characterized by strong competition, company profits tend to be lower and therefore do not justify the heavy resource commitments that are necessary to set up a WOS (Kim & Hwang, 1992). In addition, the incentive for internalization declines as the opportunity for monopolistic pricing falls. Transaction costs for transferring technology to a cooperation partner fall with a rise in the number of competitors (Gomes-Casseres, 1990). When there are only few competitors in the market, switching costs rise which makes internalization more attractive in this case (Pan, 1996) while strong competition makes the market more efficient. Thus, transaction cost theory would suggest that a high degree of competition in the host country would lead companies to prefer cooperative arrangements.

Openness to FDI (OPEN)

An effect of openness to FDI on the entry mode choice is argued mainly based on the follow the client – hypothesis. In countries whose economies are more open to international investment, there should be a higher percentage of customers from a firm's home country. Those might prefer buying from a well-known firm. Thus, in nations characterized by higher penetration of FDI, the companies might be more likely to choose a higher resource commitment (Dunning & McQueen, 1982; Contractor & Kundu, 1998b).

Power distance (in the home country) (PDI)

Considering the characteristics of the home country as antecedent of the entry mode choice is rather seldom. While descriptive results for different entry mode decisions between different home countries are rather frequent, theoretical explanations are rarely attempted. One of the only variables that are considered based on theoretical arguments is the power distance index. Investigating this variable is based on the critique of the opportunism assumption in the transaction cost approach as being too strong and one-sided. The perceived risk of opportunism does differ with the trust propensity of managers which itself is rooted in the national culture of their home country (Parkhe, 1993). The power distance index of Hofstede is considered a suitable (inverse) indicator for trust propensity (Brouthers & Brouthers, 2003; Erramilli, 1996). Differing trust propensity, thus, influences perceived transaction costs and thus, the entry mode decision (Makino & Neupert, 2000). The lower the trust propensity (i.e. the higher the PDI) the more attractive a WOS is evaluated (Brouthers & Brouthers, 2003) since companies from home countries with high PDI prefer to centralize authority and decision power. WOS provide the opportunity for hierarchical coordination (Erramilli, 1996; Hennart & Larimo, 1998).

Uncertainty avoidance (in the home country) (UAI)

The influence of a propensity to avoid uncertainty is more ambiguous. The stages models (Johanson & Vahlne, 1977) are based on the assumption of risk aversion. Risk aversion would lead to a careful resource commitment in a foreign market and consequently rather to the avoidance of a WOS to reduce the risk (Kogut & Singh, 1988). Thus, companies from home countries that are characterized by uncertainty avoidance should generally prefer cooperative entry modes (Brouthers & Brouthers, 2003; Hennart, 1991).

Contrary to this argument is the ambiguous and unclear decision and authority situation in cooperative arrangements. Avoiding uncertainty could lead to a preference of a clear structure

and distribution of decision power over a foreign organizational unit. The behavioural uncertainty of a cooperation partner is also enhancing the uncertainty of a situation (Erramilli, 1996; Brouthers & Brouthers, 2003; Makino & Neupert, 2000; Hennart & Larimo, 1998). Considering both directions of arguments, an unambiguous effect of the uncertainty avoidance cannot be posited.

4. Results of the primary studies and aggregated results

Table 1 gives an overview over the previous study results for the 14 variables that were investigated as external antecedents of the entry mode choice. It displays the significance level, the coefficient sign and some additional study characteristics of the primary studies.

-----*display Table 1 about here*

Table 1. Overview over study results in the primary studies

For all variables that have been investigated at least twice, Table 2 contains the results of four different meta-analytical procedures.

-----*display Table 2 about here*

Table 2. Integration of previous study results

Summarizing, the integration of previous studies indicates that the power distance index of the home country is the strongest positive antecedent of the propensity to establish a WOS rather than a COOP. Inversely, several external antecedents of the entry mode decision have been identified that decrease the likelihood of a WOS. These are (order following the absolute combined standardized effect size): Country Risk (RISK), Legal Restrictions (RESTRICT), Market Size (MSIZE), and Market Growth (MGROWTH). This is illustrated in the forest plot in Figure 1. As can be seen from Table 2, the two procedures “mean of the VC scale” and the combined standardized effect size produce relatively consistent results, which can be seen as a first validation of the VC scale. This validation confirms a parallel finding by Kulik, Kulik, and Cohen (1980).

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Fig 1. Combined standardized effect sizes and confidence intervals for the investigated variables

5. Discussion

CULTDIST: Cultural distance is the variable that has been investigated most frequently as antecedent of the entry mode decision. Table 2 shows that the overall results indicate no clear influence of this variable. While the conventional vote counting and the binomial test indicate a negative influence on the likelihood to establish a WOS, the more sophisticated methods, i.e. the VC scale and the combination of the effect sizes do not show a significant relationship with the entry mode decision. Looking at the detailed listing of the primary study results in Table 1 and the forest plot in Figure 2 reveals very heterogeneous study results. This is confirmed by the Q-statistic which leads to the application of a random-effects model for combining the effect sizes. This type of model results in a rather broad confidence interval (compared to a fixed-effects model) which in this case covers null. The combined effect size is negative, but non-significant.

-----display Figure 2 about here

Fig 2. Forrest plot for the variable CULTDIST

This confirms the finding of the meta-analysis by Tihanyi et al. (2004) who find that cultural distance does not significantly contribute to the prediction of entry mode choice.

RISK: In all, 23 studies deal with country risk. The forest plot in Figure 3 illustrates the rather consistent findings for those studies that can be used to combine the effect sizes.

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Fig 2. Forrest plot for the variable RISK

Each of the applied meta-analytic procedures confirms that companies prefer cooperative arrangements in situations with higher country risk. While five studies display a positive coefficient (only one of those on a significant level), the combined effect size is negative and significant and the mean of the VC scale is negative on the 1%-level. Our meta-analysis thus confirms the result by Zhao et al. (2004) who combine the effect sizes of ten studies and also find that country risk has a strong significant influence on the entry mode choice. Consistent to our findings, country risk is also the strongest influence factor in their study. Summarizing, a rising country risk is a strong external antecedent of the choice of a cooperative entry mode.

RESTRICT: Legal restrictions are among the most frequently analyzed external antecedents of the entry mode decision and previous results (see Table 1 and Figure 4) are very consistent. Not surprisingly, legal restrictions reduce the likelihood of a WOS. It has to be noted that the studies do not only consider the “trivial” case that WOS are absolutely prohibited but also other restrictive measures as reporting obligations, requirement of specific permission for WOS and other regulation. Gomes-Casseres (1990) labels the variable more broadly “restricting foreign ownership or encouraging joint ventures”. In all, of the 18 studies that investigated this variable, twelve display a highly significant negative influence and all four analysis procedures confirm that *RESTRICT* is a negative antecedent for the choice of a WOS.

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 Fig 2. Forrest plot for the variable *RESTRICT*

The only study that indicates a positive influence (Brouthers, Brouthers, & Werner, 2003) uses an Eastern European sample and can be considered an outlier. In this region, legal restrictions were still given at the point of time of the study, but since the accession to the European Union was already decided, it was also evident that these would be liberalized soon after the study and, thus, the disadvantages from the legal restrictions would not be long-lasting.

The very positive economic conditions in these countries are likely to explain the positive coefficient.

MGROWTH: As heterogeneous as the theoretical explanations are the empirical results on the influence of market growth, at least at the first sight. Seven negative coefficients are confronted with five positive coefficients. However, the combination of the effect sizes, which can be considered the most sophisticated of the applied methods, clearly indicates a negative influence, based on six studies with a combined sample size of almost 4,000 companies. As Table 1 confirms, the selection of these six studies from the total population of twelve studies does not seem to result in a major bias. Thus, market growth can – rather surprisingly – be considered a significant external antecedent on the entry mode choice, leading to a preference of cooperative entry modes.

INCOME: As ambiguous as the theoretical predictions are the empirical results on the influence of the income level. Four highly significant positive results are opposing two highly significant negative results. In addition, three non-significant results are given. Only the conventional vote counting indicates a significant relationship, but the other three procedures reject any relationship. There seems to be a tendency towards a positive influence, but the aggregate results are not significant. Thus, INCOME can not be confirmed as an external antecedent of the entry mode choice.

CONC: Even though the majority of the empirical studies on the concentration level of the industry in the host country display positive coefficients, the integration does not indicate a significant influence. All meta-analytic procedures have positive results, but not on a significant level. An unambiguous relationship between CONC and the entry mode choice can, thus, not be assumed.

MSIZE: The seven studies on the influence of market size do almost uniformly indicate another direction of the effect as it is postulated in the predictions. There are four highly signifi-

cant negative coefficients, only one (non-significant) positive result. The mean of the VC scale and the combined effect size are negative and significant. Thus, based on the results of the previous studies, MSIZE can be seen as a negative antecedent of a WOS.

One potential reason for this finding (that should be investigated in further studies) could be a lack of control variables in the primary studies. Some large markets, e.g. China and India, are at the same time culturally distant or impose legal restrictions. Not controlling for this could lead to a bias.

Or, the theoretical argument of a high proportion of fixed cost could be over-evaluated. Since a larger market might need substantially higher investment, it could be argued from the resource-based view that the necessary financial resources are easier to obtain in a cooperative arrangement.

MATTRACT: Six studies include the market attractiveness as variable and most studies indicate a positive influence. Conventional vote counting and the binomial test indicate a significant overall effect; however, the more sophisticated methods do not give a clear result. This might be owed to the rather small number of studies and the lack of information in the primary studies that does not allow the calculation of a combined effect size. Considering the deficit of previous studies, a positive effect should not yet be rejected and could be continued to be used as proposition in future studies.

VOLATIL: The effect of the volatility of demand remains unclear. Only four studies investigated this variable and three of them do not result in a significant coefficient. None of the four methods indicate a clear relationship with the entry mode choice. Taylor et al. (1998) had already argued that the transaction cost reasoning of a positive influence is being challenged by non-TCE perspectives and that previous results did not confirm a positive or a negative relationship (they refer to Kim & Hwang, 1992). Considering all empirical results for this vari-

able, the conclusion remains the same and future research should try to look into demand uncertainty in a more detailed way.

TRADBARR: Trade barriers were not found to have a significant influence on entry mode choice in two of the three previous studies and not in the integrated results. Thus, it cannot be decided which of the two opposing streams of arguments receive stronger support by the data. The fact that the openness for trade might make a market more attractive and reduce uncertainty because prior experience (direct or from competitors) might be gathered, might be compensated by the fact that markets with high trade barriers attract FDI to a higher degree and make a higher resource commitment necessary to enter the specific market.

COMP: All three studies that investigate the influence of the competitive intensity on the entry mode choice display a negative coefficient, i.e. companies seem to react to competition by choosing cooperative arrangements as entry modes. However, only one study displayed a significant coefficient (Gomes-Casseres, 1990), two display non-significant results. And even in the study by Gomes-Casseres, the coefficient becomes non-significant (but remains negative) in a second model where additional variables are integrated. Thus, there seems to be no clear influence of the competitive intensity on the entry mode choice even though it would be too early to reject the assumption of a negative influence.

OPEN: Both studies that investigate this variable (both by the same authors; Contractor & Kundu, 1998a; Contractor & Kundu, 1998b) do not reveal any relationship between the openness of the host country for FDI on the entry mode decision. The influence of openness, measured as FDI relative to GDP, results in coefficients of 0.00, and -0.000. However, the authors of the primary studies were already postulating their hypothesis with great caution, given that the theoretical arguments for a relationship were weak. One could conclude that a further investigation of this antecedent is not very promising.

PDI: Empirically the construct PDI reveals a clear picture concerning its influence. Four of the six studies are significantly positive, and thus, three of the meta-analytical procedures (except the binomial test) indicate a positive significant influence. Thus, the combined empirical findings confirm the theoretical assumption that an increasing power distance in the home country is a strong positive antecedent for the choice of a WOS for the internationalisation.

UAI: The five empirical studies on UAI are very heterogeneous and their findings do not support the assumption that the tendency to avoid uncertainty as a cultural trait of the home country is an antecedent of the entry mode choice.

6. Limitations

The limitations of our study are first of all to be found in the methodology. In literature, two main problems related to meta-analyses are the criticism of integrating non-comparable study results and the so called “file drawer problem” (Lipsey & Wilson, 2001; Hunter & Schmidt, 1990). Both aspects are – regarding our study – shortly discussed.

First, one of the most frequent arguments against meta-analysis is that it combines study results that are so different that they are not really comparable, the so called “apples and oranges problem” (Hunter & Schmidt, 1990). Studies with very different operationalizations of the independent and the dependent variables would be synthetized. However, in the presented meta-analysis, the dependent variable (WOS vs. COOP) is the same or at least very similar in every study. Concerning the independent variables, the operationalization really differs slightly in the primary studies. But this is true for only a few variables while many variables (e.g. CULTDIST) are measured with the same exact operationalization in every study (for CULTDIST this is the Kogut-Singh-Index). Also, all study results were tested for homogeneity which was present in many cases. This also supports the assumption of comparability of the constructs across the studies.

The second problem, the “file drawer problem” (also called “publication bias“) could result if the selection mechanisms in the publication process would promote the publication of significant

results while non-significant results are less likely to be published. In that case, besides the published studies, an unknown number of studies with lower effect sizes and non-significant results might exist (Hunter & Schmid, 1990). This would bias the combined effect size from the meta-analysis. As a first counter-argument, we would like to note that in the original sample of studies with the identified 503 coefficients, almost half (240 coefficients) were non-significant. Since the most frequently applied method in the primary studies in the multivariate logistic regression, the display of non-significant results is very common.

To address this problem further, we analyzed each of the five variables that yielded significant results in the combined effect size by looking at their funnel plots (Light & Pillemer, 1984). We plotted the sample size of the primary study on the x-axis and the effect size on the y-axis. If there is no publication bias, the studies should form the shape of a funnel. For all five variables this seemed to be the case which indicates that publication bias should not pose a serious problem for our results. However, it has to be noted that we almost only included published studies in our analysis and we are not aware of further, unpublished studies, so that the basic problem might still be existent.

Third, even though we have argued in detail why we used the effect sizes from multivariate regression analyses and have shown empirically that the number of regressors in the primary study does not have a systematic influence on the effect size, the combination of coefficients from multivariate statistics is still not unproblematic (Lipsey & Wilson, 2001).

Fourth, it has to be mentioned that the combination of the effect sizes only examined linear relationships. U-shaped relations can not be analyzed with this method. And the same holds true for moderating effects. Many primary studies have shown interaction effects to be relevant for the choice of a MES. But here, meta-analysis has clear limitations. We analyzed 14 variables – independent from each other – concerning their explanatory power for the choice of a wholly-owned subsidiary relative to a cooperative arrangement. The interdependence and interaction of these variables was not analyzed, since no meta-analytic methods exist to combine interaction effects

(and since the number of studies concerning each interaction effect is very low). Still, this has to be seen as a major limitation of the study.

The application of the VC scale could also be seen as a weakness, since it does not incorporate sample size. However, when primary research reports do not contain enough information to calculate effect sizes, they often still provide information about the magnitude and direction of the effect (Bushman, 1994). The VC scale can be used more to integrate a larger number of research findings if information is missing in the primary studies. This 6-point scale also has the advantage that different types of effect sizes (e.g. regression coefficients from a linear regression, TOBIT results, mean comparisons) can be aggregated more easily which is still complex in spite of the different transformation formulas. In particular for variables with a rather low number of previous studies this allows a quantitative integration. The mentioned caveat still has to be considered.

7. Conclusion

The results from the quantitative integration of previous studies are partially surprising and partially even contradicting statements in narrative literature reviews. This demonstrates the importance of integrating past study results objectively, via a meta-analysis, if possible. “Science is cumulative” (Franke, 2001, p. 186) and the statistical criteria that are commonly demanded in primary research should more often also be applied to the literature review of previous studies.

Only very few external antecedents have been investigated twice or more in primary studies; the vast majority of variables has only been used in a single study, proving a general research deficit concerning the whole set of potential antecedents. For the available findings from previous studies, the results of this meta-analysis show that only five of the 14 examined antecedents yield a clear significant influence in their synthesis.

First, that reveals that for the remaining variables, existing results are ambiguous and currently, no clear direction of a potential relationship is really empirically demonstrated. Second, the five vari-

ables can now be considered to have a clear influence on the choice of a MES, since the aggregated results can be considered relatively stable confirmations of an existing relationship. These five variables should be considered at least as control variables in future studies.

All in all, the study supports those researchers who consider the different internationalization theories to be complementary and who demand that a comprehensive explanatory model has to be based on a multi-theoretical framework. Neither single variables nor groups of variables, but the combined effect of different variables should be focused on in future research (Hill et al., 1990; Roberts & Greenwood, 1997; Madhok, 2002; Malhotra, Agarwal & Ulgado, 2004).

Appendix: List of studies in the meta-analysis with study

These studies are marked with [MA] in the references list.

#6:	Kogut & Zander (1993)	#126:	Hennart & Larimo (1998)
#11:	Hildebrandt & Weiss (1997)	#127:	Morschett & Schramm-Klein (2004)
#12:	Yiu & Makino (2002)	#135:	Elango & Sambharya (2004)
#16:	Brouthers (1995)	#138:	Palenzuela & Bobillo (1999)
#17:	Brouthers (2002)	#140(a,b):	Brouthers & Brouthers (2003)
#18:	Benito (1996)	#143:	Mayrhofer (2004)
#20:	Contractor & Kundu (1998b)	#144:	Brouthers, Brouthers, & Werner (2000)
#22:	Contractor & Kundu (1998a)	#147:	Shi, Ho, & Siu (2001)
#27:	Gatignon & Anderson (1988)	#149:	Sun (1999)
#36:	Erramilli & Rao (1993)	#160:	Shan (1991)
#37:	Erramilli, Agarwal, & Kim (1997)	#162:	Pan (1996)
#42(a,b):	Hennart (1991)	#164:	Erramilli (1996)
#48:	Kim & Hwang (1992)	#166:	Tatoglu, Glaister, & Erdal (2003)
#50:	Kogut & Singh (1988)	#168:	Lecraw (1984)
#56:	Meyer (2001)	#171:	Delios & Henisz (2000)
#62:	Gomes-Casseres (1989)	#174:	Barkema & Vermeulen (1998)
#67:	Hennart & Reddy (1997)	#182:	Padmanabhan & Cho (1999)
#69 :	Gomes-Casseres (1990)	#196:	Taylor, Zou, & Osland (1998)
#70 :	Fladmoe-Lindquist & Jacque (1995)	#197:	Herrmann & Datta (2002)
#71(a,b):	Delios & Beamish (1999)	#198:	Ekeledo & Sivakumar (2004)
#72:	Davidson & McFetridge (1985)	#209:	Baek (2003)
#75:	Chang & Rosenzweig (2001)	#210:	Madhok (1998)
#79:	Brouthers, Brouthers, & Werner (2003)	#216:	Chen & Hu (2002)
#83:	Agarwal & Ramaswami (1992)	#217:	Chen & Hu, & Hu (2002)
#86:	Pan & Tse (2000)	#218(a,b):	Shane (1992)
#88:	Randoy & Dibrell (2002)	#226:	Lu (2002)
#94:	Singh & Kogut (1989)	#234:	Cleeve (1997)
#117:	Pak & Park (2004)	#239:	Makino & Neupert (2000)
#123:	Agarwal (1994)		

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The studies that are included in the meta-analysis are indicated with [MA].

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Table 1

Overview over study results in the primary studies (VC scale) (# of the study and n in brackets)

Variable	-2,5 (neg., p<.01)	-1,5 (neg., p<.05)	-0,5 (neg., n.s.)	0,5 (pos., n.s.)	1,5 (pos., p<.05)	2,5 (pos., p<.01)	n
Cultural Distance CULTDIST	#36(381) (S) #72(1266) #197 (169) #143 (4632) (MS) #174 (829) (MS) #123 (148) #126(363)	#166(659) #117(3236) #27(1267) #75(816)	#11(83), #12(286) #18(174), #20(517) (S), #22(720) (S) #50(228) (MS) #162(2516) #182(605) #56(576)	#70(10302) (S) #216(375) (MS)	#127(80) (S) #196(165) #218a(161)	#88(129) #149(1270) #210(130) #218b(120)	29
Country Risk RISK	#11(83), #18(174) #27(1267), #48 (58) #174(829) (MS) #171(2827) #162(2516) #138(265) (MS) #117(3236), #127 (80) (S), #16(106) (S)	#17(178) (MS) #79(218) (MS) #140b(146)	#36(381) (S) #83(175) (S) #86(4296) (MS) #226(1194)	#20(517) (S) #70(10302) (S) #71a(1043) #140a(72) (S)		#123(148)	23
Legal Restrictions RESTRICT	#12(294), #17(178) (MS), #27(1267), #62(1532), #69(1877) #71a(1043), #182(605) #171(2827), #174(829) (MS), #117(3236), #140a(72) (S), #147(218) (S)		#72(1266) #164(337) #140b(146) #70(10302)	#226(1194)	#79(218) (MS)		18
Market Growth MGROWTH	#42b(98) #69(1877)	#197(269)	#75(816) #94 (506) (MS) #174 (829) (MS) #234(112)	#42a(60) #126(363)	#67(175) #239(131)	#135(336)	12
Income Level INCOME	#20(517) (S) #22(720) (S)		#18(174) #72(1266)	#174(829) (MS)		#209(182) (MS) #197(269) #123(148) #171(2827)	9
Industry Concentra- tion CONC			#42a(60) #67(175)	#42b(98) #75(816) #94(506) (MS)	#126(363)	#166(659) #135(336)	8
Market Size MSIZE	#62(1532), #69(1877) #197(269) #218a(161)		#218b(120) #226(1194)	#174(829) (MS)			7
Market Attractiveness MATTRACT	#168(153)			#17(178) (MS) #147(218) (S)	#83(175) (S) #196(165)	#88(129)	6
Volatility of Demand VOLATIL		#127(80) (S)	#135(336) #48(58)	#196(165)			4
Trade Barriers TRADBARR		#94(506) (MS)	#135(336)	#75(816)			3
Competitive Intensity COMP		#69(1877)	#162(2516) #48(58)				3
Openness of Host Country to FDI OPEN			#22(720) (S)	#20(517) (S)			2
Power Distance Index PDI (<i>Home Country</i>)			#140b(146)	#86(4296) (MS)	#140a(72) #164(337) #218b(120)	#218a(161)	6
Uncertainty Avoid- ance UAI (<i>Home C.</i>)		#140b(146)	#50(228) (MS)	#86(4296) (MS) #140a(72)		#164(337)	5

Legend: Each study result represents the influence of the variable on the likelihood of choosing a WOS rather than a COOP. Positive signs indicate that a higher value of the variable leads to a higher likelihood of a WOS.

(S): Study sample are service companies; (MS): Study sample is mixed from manufacturing companies and service companies. All non-marked studies are based on samples exclusively from manufacturing companies.

Underlined: Result of the study is usable for the calculation of the combined effect size.

Table 2
Integration of previous study results

Variable	n	Conventional Vote Counting	Binomial Test	Mean of the VC scale	Combined Standardized Effect Size (significant to the 5% level?, n/N, homogeneous?)
Cultural Distance CULTDIST	29	neg.	neg.*	-0.431 n.s.	-0.09, n.s., 12/8,892, heterogeneous
Country Risk RISK	23	neg.	neg.**	-1.283***	-0.35*, 8/6,048, homogeneous
Legal Restrictions RESTRICT	18	neg.	neg.**	-1.667***	-0.26*, 13/11,467, heterogeneous
Market Growth MGROWTH	12	0	n.s.	-0.167 n.s.	-0.11*, 6/3,979, homogeneous
Income Level INCOME	9	pos.	n.s.	0.5 n.s.	0.06, n.s., 4/1,857, heterogeneous
Industry Concentration CONC	8	pos.	n.s.	0.875†	0.12 n.s., 4/1,833, heterogeneous
Market Size MSIZE	7	neg.	n.s.	-1.5*	-0.17*, 5/5,982, homogeneous
Market Attractiveness MATTRACT	6	pos.	pos.*	0.67 n.s.	-
Volatility of Demand VOLATIL	4	0	0	-0.5 n.s.	-
Trade Barriers TRADBARR	3	0	0	-0.5 n.s.	-
Competitive Intensity COMP	3	0	0	-0.83 n.s.	-
Openness of Host Country OPEN	2	0	n.s.	0 n.s.	?
Power Distance Index PDI (<i>Home Country</i>)	6	pos.	n.s.	1.167*	0.21*, 5/836, homogeneous
Uncertainty Avoidance UAI (<i>Home Country</i>)	5	0	n.s.	0.300 n.s.	0.31 n.s., 3/555, heterogeneous

Legend: Positive signs indicate that a higher value of the variable leads to a higher likelihood of a WOS.

n: number of studies; N: size of aggregated sample

homogeneous/heterogeneous indicates the results of the Q-test for homogeneity of the primary study results. When homogeneity is indicated, a fixed-effects model was calculated, when heterogeneity is indicated, a random-effects model was calculated.

Significance levels: n.s.: not significant; †: 0.1; *: 0.05, **: 0.01, ***: 0.001.

For the combination of the standardized effect sizes, it was only tested, whether the combined result is significant on the 5%-level or not.

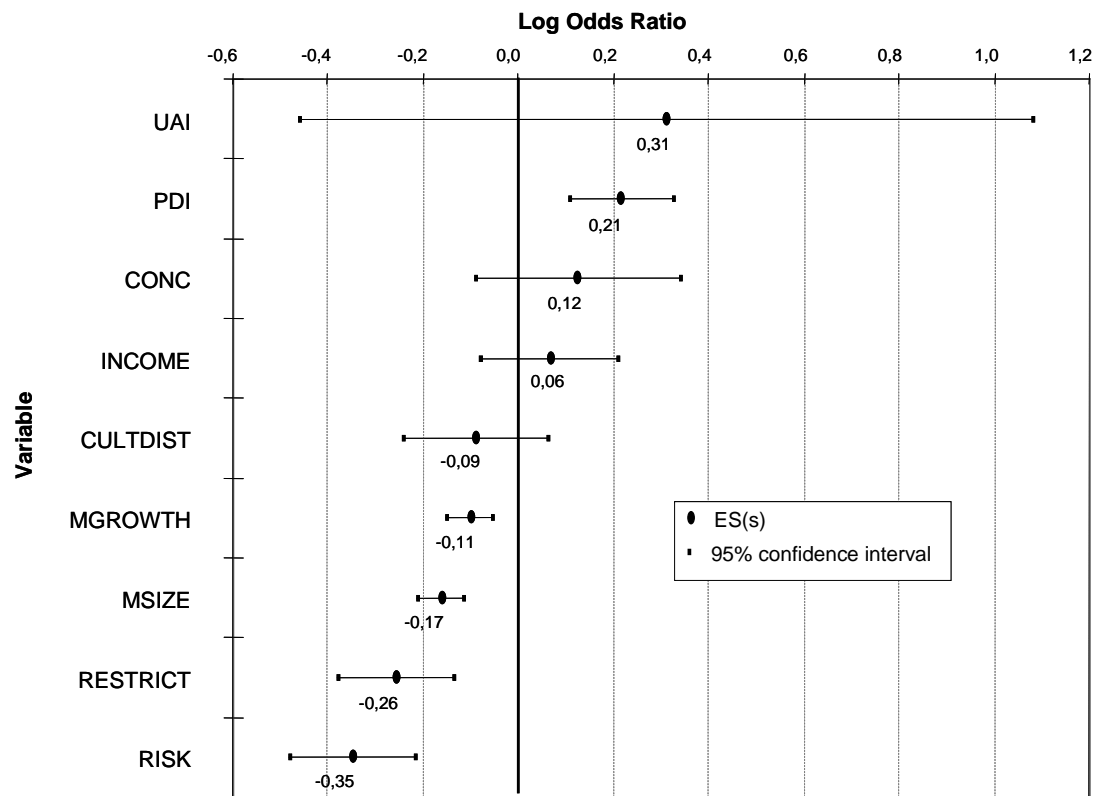


Fig. 1. Combined standardized effect sizes and confidence intervals for the investigated variables

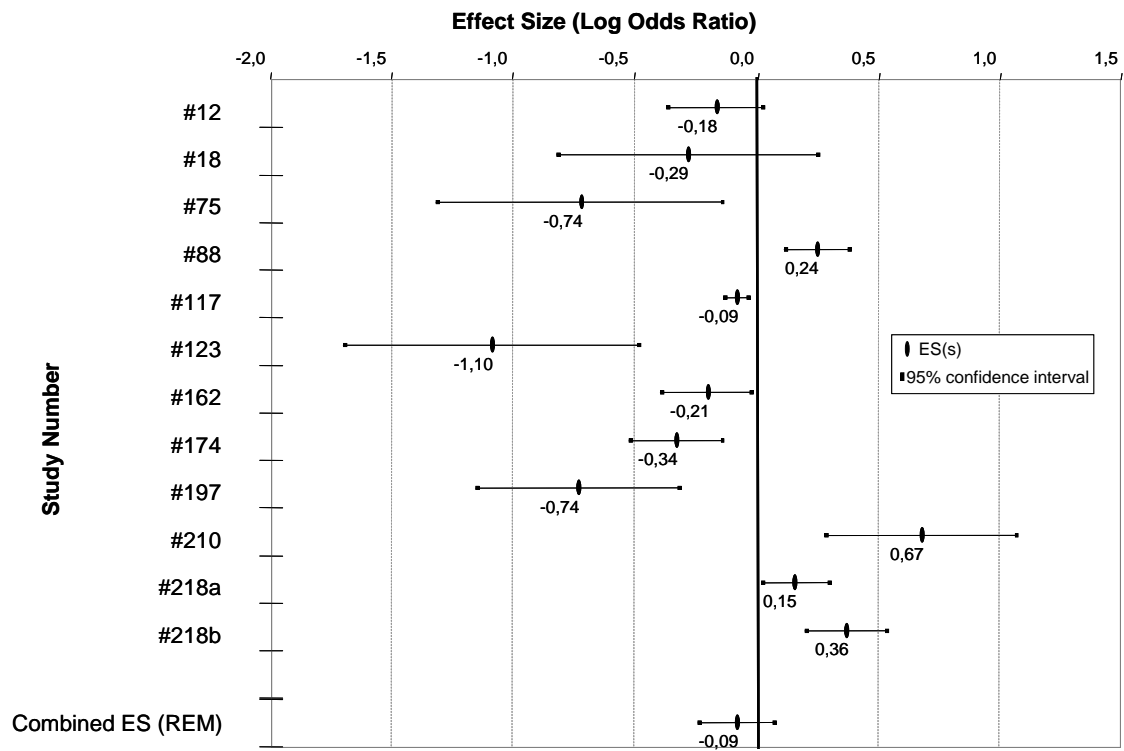


Fig. 2. Forrest plot for the variable CULTDIST

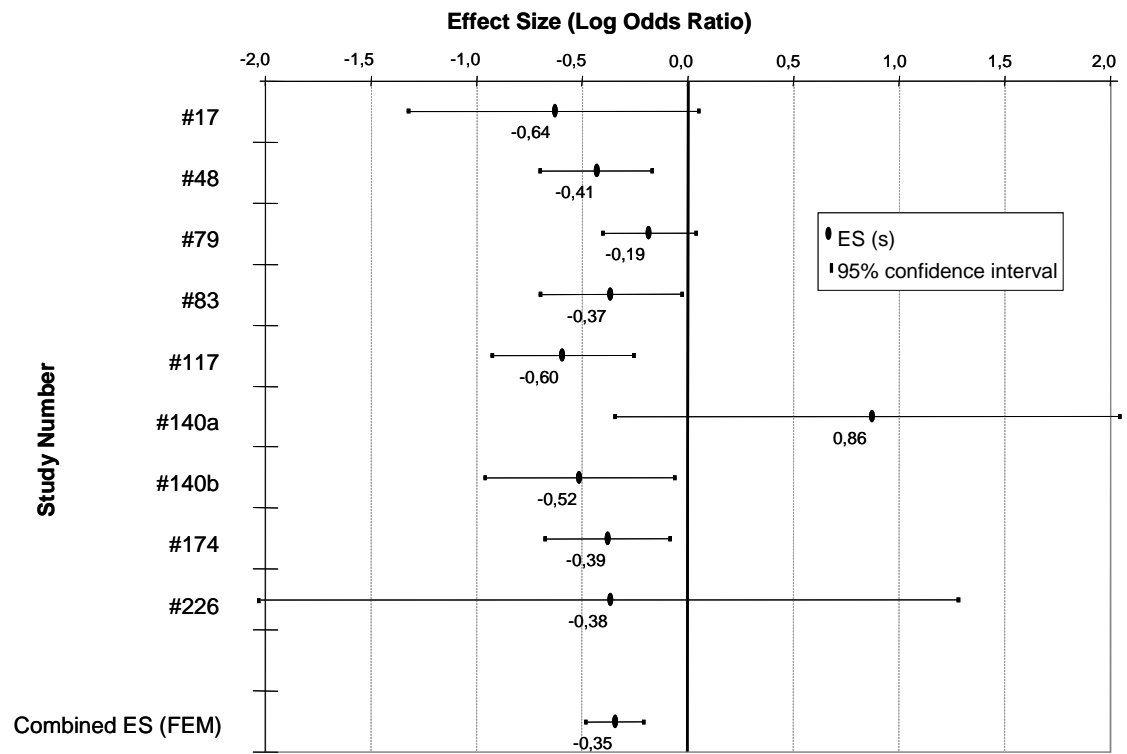


Fig. 3. Forrest plot for the variable RISK

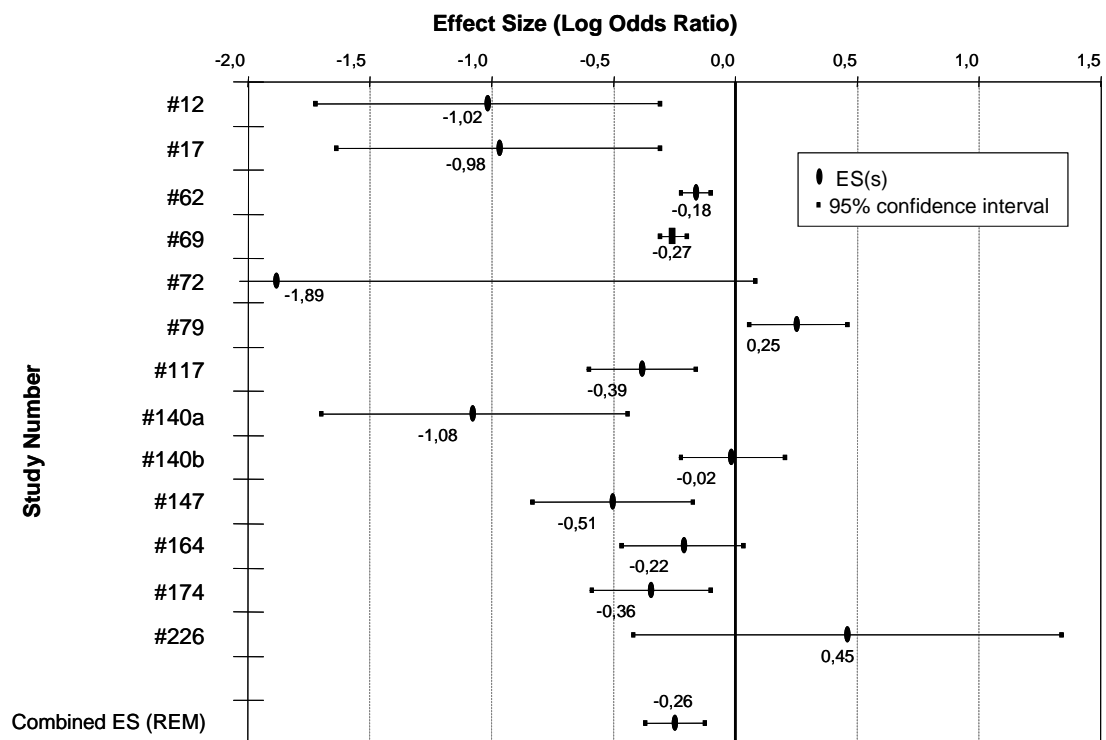


Fig. 4. Forrest plot for the variable RESTRICT