The question of how far international firms should standardize or adapt their product strategies across countries has been one of the central research questions in the international marketing literature. In the present paper, we stress that the performance outcome of a firm’s international standardization/adaptation strategy depends on the degree of fit between the strategy and the situation. Therefore, our paper builds on the fit approach. As decisions about international standardization/adaptation ultimately affect a firm’s revenue-cost structure and therefore its profit, our paper also takes a profit logic perspective. Combining the fit approach and the profit logic, we are able to identify the degree to which profit-maximizing firms have to standardize/adapt the various elements of their product strategy, depending on the situation. Using the fit-as-matching perspective, we can also investigate the effects of over-adaptation and over-standardization on performance. We conclude with a theoretically and empirically based model that integrates strategic, structural, and environmental variables relevant to the standardization/adaptation decisions of firms operating across borders.

1. Introduction

Decisions about international marketing standardization and adaptation have proved to be highly important to the success of international firms (Hofer 2015; Tan and Sousa 2013). As illustrated in several literature reviews, research on international standardization/adaptation can be divided into two categories: descriptive research and prescriptive research, the latter of which aims to provide normative managerial recommendations (e.g., Birnik and Bowman 2007; Schmid and Kotulla 2011; Solberg 2000). Within the prescriptive research category, substantial progress has been made over the past several years. In particular, many studies have stressed the value of normative contingency theory for identifying performance-enhancing strategies in given situations (e.g., Roth 1995; Schilke et al. 2009; Solberg 2008).

Normative contingency theory, also known as the theory of strategic fit, holds that performance-enhancing strategies are those that fit the specific situation in which the strategy is pursued (e.g., Drazin and van de Ven 1985; Venkatraman 1989). In other words, the performance outcome of a firm’s strategy depends on the degree of fit or coalignment between the strategy and the specific situation. Transferring this “fit logic” to the present research field, numerous studies have shown that there is no one-size-fits-all solution to international marketing standardization/adaptation (Gabrielsson et al. 2012; Virvilaitė and Šeinauskienė 2016). Instead, different degrees of standardization/adaptation can lead to superior performance, depending on the internal and external situation of the firm and on the marketing mix elements considered (e.g., Okazaki et al. 2007). Accordingly, for each product and each market, there must be a fit between the situation and the degree of standardization/adaptation so as to reach superior performance. The optimal degree of standardization and adaptation may vary from product to product and from country to country.
Several scholars have argued that performance-oriented decisions about international marketing standardization/adaptation ultimately require a trade-off between cost and revenue considerations (e.g., Samiee and Roth 1992; Shoham 1996; Shoham and Albaum 1994). On the one hand, a high degree of international standardization allows a firm to reduce its costs, particularly in research and development, production, and marketing, leading to higher profit margins or enabling lower prices and thus higher sales volumes (e.g., Levitt 1983; Ryans et al. 2003). On the other hand, a high degree of international adaptation provides a firm with the opportunity to better meet foreign consumers’ needs, leading to higher sales volumes or enabling higher prices and thus higher revenues (e.g., Kotler 1986; Shoham and Albaum 1994). In the end, any degree of international marketing standardization/adaptation will affect a firm’s revenue-cost structure and therefore its profit (e.g., Ryans et al. 2003).

However, only limited research has been conducted on the link between this “profit logic” and the aforementioned “fit logic”. This is surprising, given our understanding that the same degree of international standardization/adaptation can have different effects on a firm’s profit structure in different situations. While some of the fit approaches integrate performance consequences, the connection with profit (as one performance measure) has been largely neglected. Schmid and Kotulla (2011) have partially filled this research gap by developing propositions regarding the situation-specific profit effects of international product standardization/adaptation. However, similar to Jain (1989), they did not provide an empirical test for their propositions and they did not develop detailed recommendations regarding the different elements of the international product strategy (e.g., product name, product features, and product packaging). In the present study, we aim to close these research gaps. Our main objective is to identify the situation-specific profit effects of international product standardization/adaptation. The contributions of our work are threefold.

First, our empirical study simultaneously accounts for (1) the fact that the performance outcome of a firm’s international standardization/adaptation strategy depends on the degree of fit between the strategy and the specific situation (“fit logic”) and (2) the fact that performance-oriented decisions about international standardization/adaptation specifically affect a firm’s revenue-cost structure and therefore its profit (“profit logic”). To the best of our knowledge, such a combination does not yet exist, although it is a necessary condition for providing situation-specific recommendations to profit-maximizing firms.

Second, when combining the fit logic and the profit logic, we draw on the concept of “fit as matching” (Hultman et al. 2009; Venkatraman 1989) and analyse not only the profit effects of strategic fit but also the effects of strategic misfit. As we will show, the “fit as matching” perspective, which combines elements of “the fit as profile deviation” perspective and elements of the “fit as moderation” perspective, will enable us to investigate the performance effects of the fit between the degree of international product standardization/adaptation and a firm’s situation. Furthermore, we distinguish between general misfit, over-adaptation, and over-standardization. In doing so, we build on the work by Dow (2006), who analysed the phenomenon of over-standardization, albeit without considering its performance effects. By investigating the profit effects of general misfit, over-adaptation, and over-standardization, we reach differentiated conclusions regarding profit-enhancing strategies of international standardization/adaptation.

Third, we analyse international standardization/adaptation at the level of the individual product-market venture. Compared to most prior research, however, our study tests hypotheses not only at the overall product level but also at the product sub-element level, namely, with consideration given to product name, product positioning, product quality, product features, product packaging, and number of models in the product line (e.g., Katsikeas et al. 2006). As has been argued by Lages et al. (2008a), a differentiated investigation of the product strategy is necessary for capturing the complexities of the standardization/adaptation strategies pursued by international firms.

Overall, our study is intended to provide new insights into the field by showing which elements of the product strategy have to be standardized/adapted, and to what degree, to enhance the product- and industry-specific profit of an international firm in a given situation (see also Kotulla 2012). In other words: our objective is to investigate the profit effects of the fit between the degree of international product standardization/adaptation and a firm’s internal and external situation. In particular, we aim to analyse the extent to which the profit effects vary in direction and/or strength, depending on several situational factors and on the product strategy elements considered.

2. Theoretical background

Building on previous literature, we define the degree of international product standardization/adaptation as representing a point on the continuum between total standardization and total adaptation of the international product strategy (Lages et al. 2008a; Waheeduzzaman and Dube 2004). In this context, total standardization describes the identical use of product strategy elements (such as product name, product positioning, product quality, product packaging, or number of models in the product line) across all national markets, whereas total adaptation describes the idiosyncratic use of product strategy elements in each foreign market (e.g., Cavusgil et al. 1993). As demonstrated in previous research, the degree of international product standardization/adaptation can affect the performance outcome for a specific product either directly or indirectly (e.g., Schilke et al. 2009; Subramaniam and Hewett 2004). Furthermore, the performance effect can vary across situations both in direction and in

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strength (e.g., Calantone et al. 2006). Those constellations of product strategy elements that produce a highly positive performance effect are labelled “fit constellations”, as they constitute an adequate fit between the degree of international product standardization/adaptation and the corresponding situation (Hultman et al. 2009). In contrast, constellations of product strategy elements that have a negative effect on performance can be termed “misfit constellations” (Katsikeas et al. 2006).

Fit theory, also known as normative contingency theory, can be traced back to strategy and organization literature (e.g., Geiger et al. 2006; Venkatraman and Camillius 1984) and has also been applied to international business and international marketing research (e.g., Katsikeas et al. 2006; Xu et al. 2006). Fit theory states that performance-enhancing strategies are those that fit the specific situation in which the strategy is pursued. Depending on the degree of specificity and on the existence of a criterion variable, fit can be conceptualized in any of six different ways: as moderation (interaction of variables), as mediation (intervention of variables), as profile deviation (adherence of variables to an ideal profile), as matching (predefined match of variables), as covariation (internal consistency of variables), or as gestalts (internal coherence among variables) (Venkatraman 1989). Each of these conceptualizations captures specific forms and aspects of fit, thereby leading to different results and implications. Consequently, it is necessary to choose a conceptualization of fit that suits the given research context (Drazin and van de Ven 1985; Venkatraman 1989).

As our objective is to identify the performance effect of the fit between international standardization/adaptation and the situation (especially aiming to analyse whether this effect varies in direction and/or strength), we have to opt for the fit as matching perspective (Venkatraman 1989). This perspective allows to investigate the performance effect of the degree of match or mismatch between single strategy variables (e.g., product strategy elements) and single situational variables (e.g., environmental or organizational variables). More precisely, by calculating the degree of deviation from a theoretically defined match between these variables, the performance effect of fit or misfit can be analysed in terms of direction and strength (e.g., Gabrielson et al. 2012; Hultman et al. 2009). Furthermore, a distinction can be made between positive and negative deviations from the predefined match. Thus, related to the given research context, it is possible not only to identify the performance-optimal degree of international product standardization/adaptation in a given situation but also to analyse the performance effects of over-adaptation and over-standardization (Dow 2006).

Before developing our hypotheses regarding performance-enhancing strategies in given situations, we want to clarify our theoretical understanding of “performance”. The reason for this is obvious: defining performance as profit, as revenue, or as customer satisfaction leads to different hypotheses regarding profit-, revenue-, or customer-satisfaction-enhancing strategies. Therefore, the development of fit-based hypotheses must be preceded by and based on a theoretical clarification of the performance construct (e.g., Hult et al. 2008). Although research considering performance is still generally underrepresented in the field (Griffith et al. 2008; Schilke et al. 2009), some scholars have shown that performance-oriented decisions about international marketing standardization/adaptation ultimately affect a firm’s revenue-cost structure and therefore its profit (e.g., Ryan et al. 2003; Samiee and Roth 1992; Shoham and Albano 1994). All other types of performance, such as customer performance and market performance (Hultman et al. 2011), can be regarded as “intervening constructs” that are ultimately expressed in a firm’s profit (e.g., high customer satisfaction can lead to higher sales volumes, higher revenues, and thus higher profits). Therefore, our development of hypotheses in the following section will be geared toward profit-enhancing strategies of international product standardization/adaptation in given situations (e.g., Samiee and Roth 1992; Shoham and Albano 1994).

Many scholars have noted that decisions about international product standardization/adaptation are made not at the overall firm level but at the level of the individual product-market venture (Cavusgil and Zou 1994; Lages et al. 2008a). Thus, when developing our hypotheses, we will concentrate on the individual product-market venture and analyse the extent to which decisions about international product standardization/adaptation affect a firm’s foreign product profit, depending on the situation. Drawing on Asche et al. (2007), Kumbhakar (2002), and Schmid and Kotulla (2011), a specific degree of international product standardization/adaptation can enhance foreign product profit if it fulfils at least one of the following four conditions. (1) It leads to an increase in the achievable price per unit, (2) it leads to an increase in the quantity of products sold, (3) it leads to a decrease in the total cost per unit, (4) it leads to a relative increase in the product-profit margin that is larger than a possible relative decrease in the quantity of products sold, or vice versa.

The fulfilment of these conditions is not only strategy-dependent but also situation-specific, necessitating the application of fit theory (Venkatraman 1989; Xu et al. 2006). Based on this logic, Schmid and Kotulla (2011) have theoretically argued that a high degree of international product standardization is likely to enhance foreign product profit if there is (a) a high cross-national homogeneity of demand, (b) a high potential for cross-national economies of scale, (c) a high cost of product modification, and (d) a high foreign price elasticity of demand. Similarly, a low degree of international product standardization is likely to enhance product profit if there is (a) a low cross-national homogeneity of demand, (b) a low potential for cross-national economies of scale, (c) a low cost of product modification, and (d) a low foreign...
price elasticity of demand. The same logic applies for a medium degree of product standardization, being linked with medium degrees of (a) cross-national homogeneity of demand, (b) potential for cross-national economies of scale, (c) cost of product modification, and (d) foreign price elasticity of demand.

3. Hypotheses

Before empirically testing the relationships outlined in section 2, we want to substantiate our reasoning and establish our hypotheses in the following.

(a) Cross-national homogeneity of demand: Regarding the above-mentioned conditions (1) and (2), the achievable price per unit of a product and the quantity of products sold are directly linked to consumers’ willingness to pay and to the quantity of products demanded, respectively (Ergin and Akbay 2010; Le Gall-Ely 2009). In the case of a high degree of international product standardization, the willingness to pay and the quantity of products demanded will be high in markets with high cross-national homogeneity of demand that ask for similar or identical products across countries (e.g., due to a low cultural distance between countries; Roth 1995; Solberg 2008). Thus, high cross-national homogeneity of demand calls for a high degree of international product standardization. In contrast, medium or low cross-national homogeneity of demand calls for a medium or low degree of international product standardization, especially in demand-driven industries and with regard to demand-relevant product strategy elements (e.g., product features).

H1: A fit between high (medium, low) cross-national homogeneity of demand for a product and a high (medium, low) degree of international product standardization enhances foreign product profit.

(b) Cross-national economies of scale: Regarding condition (3), the total unit cost of a product is particularly influenced by the quantity of products produced, which, in turn, is linked to the quantity of products demanded: an increase in the quantity of products demanded leads to an increase in the quantity of products produced, which leads to a decrease in the total cost per unit. The size of this effect depends primarily on the potential for cost savings through the realization of economies of scale in the different value chain functions (e.g., Levitt 1983; Shoham 1996; Yip 1995). Significant economies of scale can be achieved for products that are highly standardized, but the potential for cross-national economies of scale can vary greatly, for example, depending on the degree of centralization (e.g., Özsomer and Simonin 2004), on the number of similar foreign markets operated (e.g., Schilke et al. 2009), or on foreign market size (e.g., Chhabra 1996; Rau and Preble 1987). In general, situations in which there is a high potential for cross-national economies of scale call for a high degree of international product standardization. We expect this logic to be particularly relevant for cost-driven industries or cost-sensitive segments of specific industries (e.g., the cost leadership segment of an industry) and with regard to cost-sensitive product strategy elements, i.e., those elements of the marketing mix that have a strong effect on (additional) cost (e.g., additional cost for additional product quality).

H2: A fit between a high (medium, low) potential for cross-national economies of scale for a product and a high (medium, low) degree of international product standardization enhances foreign product profit.

(c) Cost of modification: The standardization-relevant total cost per unit depends not only on the quantity of products produced but also on the cost-intensity of international product adaptation (e.g., Calantone et al. 2004; Sustar 2004). This cost-intensity is based primarily on the cost of product modification, which, in turn, varies especially depending on the complexity of the product and on the firm’s production facilities (e.g., Prasad 1998; Solberg 2008). Therefore, situations in which the cost of product modification is high call for a high degree of international product standardization, especially in high-complexity industries and with regard to complex product strategy elements (e.g., high number of models in the product line).

H3: A fit between a high (medium, low) cost of modification for a product and a high (medium, low) degree of international product standardization enhances foreign product profit.

(d) Foreign price elasticity of demand: Finally, condition (4) concerns the ability of a strategy to lead to a relative increase in the product-profit margin that is larger than a possible relative decrease in the quantity of products sold, or vice versa. The fulfilment of this condition depends primarily on the price elasticity of demand for a product (e.g., Agiakloglou and Yannelis 2006; Kreinin 1967). If an international firm offers a product with highly price-elastic demand abroad (e.g., resulting from a high intensity of foreign competition; Hultman et al. 2009; Katsikeas et al. 2006), a small increase in the price per unit results in a comparatively large decrease in the quantity of products sold, which, in turn, leads to an increase in the total cost per unit, or vice versa. Therefore, in situations in which the foreign price elasticity of demand for a specific product is high, international firms should attempt to offer their products at relatively low prices abroad to increase their revenue and profit. Lower prices require lower costs, which can be realized most easily through standardized production and marketing (e.g., Levitt 1983; Yip 1995). In general, situations in which there is high foreign price elasticity of demand for a specific product call for a high degree of international product standardization. We expect this logic to hold true especially in price-sensitive industries and with regard to price-sensitive product strategy elements (e.g., product features).
1 According to each of the four hypotheses, a situation-strategy fit exists when the respective situational variable and the strategy variable have similar relative values (e.g., high-high, medium-medium, low-low).

**H4:** A fit between high (medium, low) foreign price elasticity of demand for a product and a high (medium, low) degree of international product standardization/adaptation enhances foreign product profit.

Fig. 1 summarizes the conceptual model resulting from the profit- and fit-based hypotheses developed above. We argue that the four situational fit variables included in Fig. 1 are the only variables that directly affect the relationship between international product standardization/adaptation and foreign product profit (Schmid and Kotulla 2011). All of the other variables analysed in previous research either influence these fit variables (e.g., high cross-national similarity in consumer preferences leads to a lower cost of product modification), affect the strategy of international product standardization/adaptation (e.g., high centralization in value-adding activities leads to a higher degree of international product standardization), or directly influence foreign product profit (e.g., high intensity of foreign competition leads to lower foreign product profit). By integrating several influencing variables and control variables in our study, we will empirically investigate the existence of such relationships (see also Kotulla 2012, pp. 71–170).

### 4. Methodology

**Sample:** To test the hypotheses of our model, we conducted a large-scale, two-industry survey to enable industry-specific analyses and conclusions (e.g., Schlegelmilch 1986). We chose two major FMCG industries, cosmetics and food, because they have been shown to differ significantly with regard to various market settings, especially in terms of the average degree of international standardization (e.g., Schuh 2007). Thereby, we intended to achieve a sufficiently high variance in the central constructs of our model. We concentrated on Germany as the home market because Germany’s cosmetics and food industries have comparatively high average foreign sales ratios (BVE 2011; Colipa 2010; IKW 2011). In addition, the size of Germany enables analyses that are free from small-country effects, as would be of concern in the case of Switzerland, for example (McGahan and Victer 2010). We only chose firms headquartered in Germany and not firms for which Germany is one out of several host country markets, as we are interested in the question of how products from one country (in this case Germany) are standardized or adapted across several other countries. Regarding our host countries, we focused on the USA, Russia, China, France, and Austria. [2] By choosing both small and large host countries and by selecting both culturally close and culturally distant host markets (as related to Germany), we aimed to achieve a high variance in the main variables of our model (Hofstede 1980; House et al. 2004). Overall, our systematic sample selection was intended to maximize the generalizability of our results (Blair and Zinkhan 2006).

The basis of our study were all firms within the German cosmetics and food industries. We obtained a list of these...
firms from two industry-specific firm-data suppliers, resulting in 162 firms from the cosmetics industry and 295 firms from the food industry (for a similar approach, see, e.g., Lee et al. 2008; Stoian and Rialp-Criado 2010). As our unit of analysis is the individual product-market venture and most of the analysed firms are multi-product firms, we contacted all available product managers, brand managers, and export managers per firm, leading to 1,240 informants. An individualized e-mail message was sent to each person, informing him or her about the contents of our study and offering participants a summary of the study results. Each e-mail message included a hyperlink to an online questionnaire that required approximately 15 minutes to complete. At the beginning of the questionnaire, all participants were asked to confirm their knowledge, involvement, and responsibility regarding a specific foreign product-market venture, thereby ensuring key informant quality of the provided data (Kumar et al. 1993).

Together, the initial e-mail messages and several reminders yielded 298 completed questionnaires (24.0% response rate). However, following Hultman et al. (2009) and Kumar et al. (1993), we employed strict criteria in checking the quality of the data to be analysed: of the 298 questionnaires completed, we excluded 95 questionnaires, mainly due to missing data. The final number of usable responses totalled 203, representing an effective response rate of 16.4%. Within this sample, 95 responses represent the cosmetics industry (46.8%) and 108 responses represent the food industry (53.2%). Regarding foreign markets, 58 responses pertain to France (28.6%), 34 to Austria (16.8%), 27 to the USA (13.3%), 23 to Russia (11.3%), and 22 to China (10.8%). [3] Our sample is evenly distributed over different classes of firm size: 31.5% of the responses represent firms with annual revenues less than €50m, 32.0% represent firms with annual revenues between €50m and €500m, and 36.5% represent firms with annual revenues above €500m. Therefore, biases resulting from a dominance of very small or very large firms within the sample are not expected (e.g., Männik et al. 2004). To ensure the representativeness of the collected data, we tested for non-response bias (Chen 1996; Hudson et al. 2004). The results of our test show that non-response bias does not appear to constitute a problem in our study.

Measurement: We modelled our measurement constructs mainly based on existing constructs from previous research. To ensure the content validity and the face validity of our measures, we conducted several pre-tests (Nunnally and Bernstein 1993). These pre-tests included two stages. In the first stage, eight academic experts in questionnaire construction and/or international marketing examined our questionnaire and provided valuable feedback regarding the sequencing and design of our survey. In the second stage, 50 randomly selected product managers were contacted to test our questionnaire. We received eleven responses with only minor remarks, most of which concerned the wording of single questions. All in all, feedback from academic experts and product managers indicated high face validity and content validity of our survey instrument.

Depending on their nature, we conceptualized each of our theoretical constructs either as formative or as reflective (Diamantopoulos and Siguaw 2006). For the reflective constructs, we used single- or multi-item measurements, according to the degree of concreteness of the construct (Bergkvist and Rossiter 2007, 2009). Tab. A1 in the appendix provides an overview of all measurement constructs, including their corresponding items as well as specific quality criteria that result from a standard psychometric scale assessment procedure (Nunnally and Bernstein 1993).

Independent variable: We conceptualized the degree of international product standardization as the extent to which the elements of the product strategy are used identically in the home market and in a particular host market with regard to a specific product-market venture (e.g., Cavusgil et al. 1993; Schilke et al. 2009). Building on the authoritative literature in the field (e.g., Hultman et al. 2009; Lages et al. 2008a, 2008b; Theodosiou and Leondou 2003), we measured the degree of international product standardization separately for the elements of product name, product positioning, product quality, product features (cosmetics: ingredients, effect, scent, colour; food: ingredients, taste, smell, colour), product packaging (packaging design, packaging size), and models in the product line. As multiple examples from the business world demonstrate, the elements of a single product can differ greatly in their degree of international standardization (e.g., Hise 2010; Quelch and Hoff 1986). For example, international firms can standardize the brand name of their products while adapting their product packaging. Therefore, from a statistical point of view, the overall product standardization construct is formed by the degree of standardization of the single product strategy elements, necessitating a formative conceptualization (Diamantopoulos and Siguaw 2006). Consequently, although most studies in the field conceptualize standardization as a reflective construct (e.g., Lages et al. 2008a), we opted for a formative conceptualization with multiple items following Diamantopoulos and Winklhofer (2001). Clearly, the overall degree of product standardization results from decisions on various elements of the marketing mix which are not necessarily highly correlated. Our rationale for using a formative conceptualization in the present research context is supported by the low variance inflation factor of 3.38.

Situational fit variables: Most of the situational fit variables were conceptualized as reflective constructs under the assumption that the responses of the managers surveyed represent approximate reflections of reality (e.g., Starbuck and Mezias 1996). In line with Bergkvist and Rossiter (2009), those situational fit variables that refer to relatively concrete phenomena and/or cannot be reasonably conceptualized as multi-item constructs were de-
signed as single-item constructs. This was true of the cross-national homogeneity of demand for a product, the potential for cross-national economies of scale for a product, and the foreign price elasticity of demand for a product. Building on Bergkvist and Rossiter (2007) and Rossiter (2002), we assume that managers who are responsible for a specific product-market venture can be regarded as experts being able to realistically assess these phenomena based on single-item measures. In contrast, the cost of modification for a specific product can vary greatly across product elements. For example, modifying the name of a product and modifying the ingredients of that same product might entail very different costs. Therefore, the total cost of modification does not reflect the cost of modifying every single product element; instead, the costs of modifying all product elements form the total cost of product modification, indicating a formative conceptualization (Diamantopoulos and Sigauw 2006). Again, we followed the procedure of Diamantopoulos and Winklhofer (2001) and measured the cost of modification separately for each of the product elements considered. After omitting two elements because of slight multicollinearity, we worked with an eight-item formative construct with a variance inflation factor of 5.04.

**Dependent variable:** In line with the profit logic, performance is defined as the profit for a specific product-market venture (Cavusgil and Zou 1994; Samiee and Roth 1992). As objective data on this profit measure are usually not available, we decided to capture foreign product profit based on managers’ subjective evaluations (Katsikeas et al. 2006; Venkatraman and Ramanujam 1987). In accordance with previous research, we conceptualized our performance construct as a reflective multi-item construct with different items representing different reference points (e. g., Alashban et al. 2002; Dow 2006; Katsikeas et al. 2000; Pleshko and Souiden 2003). In particular, based on prior literature and logical considerations, we measured foreign product profit relative to the initial expectations regarding foreign product profit, relative to the highest foreign product profit possible, relative to the estimated foreign product profit of the strongest competitor, and relative to the estimated domestic profit of the respective product. By including various reference points, we cannot rule out but at least reduce the risk of systematic bias. The coefficient alpha of our construct is .79, indicating a sufficiently high reliability.

**Influencing and control variables:** Finally, we included influencing variables and control variables to investigate the extent to which the situational variables analysed in previous research can be integrated into our model. Based on the literature review by Theodosiou and Leonidou (2003), we considered the following influencing variables as single-item measures: cross-national similarity in the legal, economic, cultural, technological, and political environments (e. g., Hultman et al. 2009), cross-national similarity in consumer preferences, behaviour, and usage patterns (e. g., Katsikeas et al. 2006), cross-national similarity in competition (e. g., Chung 2009), intensity of foreign competition (e. g., Lages and Montgomery 2005), foreign market size (e. g., Rau and Preble 1987), centralization in decision-making and value-adding activities (e. g., Özsomer and Simonin 2004), supranational/regional product strategy (e. g., Chung 2005), generic strategy (e. g., Schilke et al. 2009), and foreign market entry mode (e. g., Florin and Ogbeuei 2004). In addition, we used single-item measures for the following control variables analysed in previous research: importance of the product within the firm’s product portfolio (e. g., Djursaa and Kragh 1988), foreign customer satisfaction (e. g., Yamin and Altunisik 2003), intensity of foreign competition (e. g., O’Cass and Julian 2003a), foreign market size (e. g., Chhabra 1996), firm size (e. g., O’Cass and Julian 2003b), international experience of the firm (e. g., Zou and Cavusgil 2002), and international standardization of pricing, distribution, and communication (e. g., Lim et al. 2006).

**Method:** To test our model, we conducted variance-based structural equation modelling based on partial least squares (PLS) analysis (e. g., Ketkar et al. 2012). This approach was taken for several reasons. First, given our industry-specific sample sizes (cosmetics: 95; food: 108) and the complexity of our model (including the influencing variables and control variables), covariance-based structural equation modelling would lead to an unidentified model or unstable results (Reinartz et al. 2009). Second, as explained above, our model comprises both reflective and formative constructs, which, in the present context, can be integrated most appropriately by means of variance-based structural equation modelling (MacCallum and Browne 1993). Third, PLS analysis has the advantage that observed variables do not have to meet specific distribution assumptions (Rinkenburger 2012, pp. 60–62). Fourth, variance-based structural equation modelling is particularly suited for prescriptive research, as PLS analysis puts emphasis on maximizing the variance explained in the dependent variable (Reinartz et al. 2009).

We tested for common method bias using both Harman’s single-factor test (Malhotra et al. 2006) and the marker variable test suggested by Lindell and Whitney (2001). When applying Harman’s single-factor test, we were able to extract eight factors with eigenvalues > 1. More importantly, the factor with the highest eigenvalue (6.55) explained only 19.3 % of the total variance. When running the marker variable test, we used tenure of the respondents as the marker variable. All relevant correlations with our profit construct remained significant. Hence, common method bias does not constitute a problem in our study.

5. Analysis and results

5.1. Pre-analysis

Before testing the hypothesized fit effects of our model, we analysed the direct profit effects of international product standardization/adaptation. The results of this analysis are presented in Tab. 1.
As Table 1 shows, we found a highly significant and positive overall effect of international product standardization on foreign product profit. Although this result is in line with previous research in the field (e.g., Levitt 1983; Schilke et al. 2009; Zou and Cavusgil 2002), a closer look at Table 1 raises questions about the generalizability of the observed effect. First, the effect differs across product elements. For two product elements (product name and product quality in the food industry), a high degree of international standardization appears to be advantageous. In contrast, a third element (product packaging design in the food industry) calls for a high degree of international adaptation. None of the remaining elements individually show any significant effects. Second, the direct profit effects differ across industries. Whereas several significant profit effects are found in the food industry, the cosmetics industry shows only one significant effect at the overall product level. Consequently, studies that mix different industries and those that analyze international standardization only at the overall product level run the risk of yielding statistical artefacts. For this reason, we differentiated our fit-based analysis by product element and by industry.

5.2. Hypothesis testing

In our analysis of fit as matching, we investigated the profit effects of the degree of match or mismatch between international product standardization (differentiated by product element) and each of the four theoretically derived situational fit variables. For this purpose, we applied deviation score/residual analysis (Hultman et al. 2009; Naman and Slevin 1993) and subtracted the degree of international standardization for each product element (measured on a scale from 1 to 7) from the value for each situational fit variable (also measured on a scale from 1 to 7). Thereby, we obtained 40 difference values for each case (10 product elements * 4 situational fit variables) that range from -6 to +6. A difference value of 0 represents the hypothesized optimum, whereas positive values represent “over-adaptation” and negative values represent “over-standardization”. The absolute values, which range from 0 to 6, can be interpreted as the degree of “general mismatch” (e.g., Katsikeas et al. 2006).

With the aim of drawing differentiated conclusions, we separately analyzed the effects of general mismatch, over-adaptation, and over-standardization on foreign product profit according to each of the four hypotheses. The resulting correlation matrices are presented in Table A2 in the appendix. As our model includes only one reflective multi-item construct, discriminant and convergent validity could not be calculated in this case. The PLS-based results of our fit analyses are presented in Table 2. All analyses were performed using SmartPLS 2.0.

In contrast to the few direct profit effects presented in Table 1, the fit-based analysis summarized in Table 2 indicates several significant effects at the product element level, supporting our approach of combining the “fit logic” and the “profit logic”. Furthermore, the adjusted R² value for each of the analyzed relationships (general mismatch, over-adaptation, and over-standardization) ranges between .16 and .31. Considering the large number of other variables that influence a firm’s foreign product profit, these values can be regarded as realistic (Venkatraman and Ramamurthy 1986).

Concerning the hypothesized situational fit effects, foreign product profit is decreased by a mismatch between the cross-national homogeneity of demand and the degree of international standardization of product effect ($\beta = -.66$, $p < .05$) and product scent ($\beta = -.55$, $p < .05$) in the cosmetics industry and of product colour ($\beta = -.26$, $p < .10$) and product packaging design ($\beta = -.22$, $p < .01$) in the food industry, supporting $H1$ for these constellations. In contrast, over-standardization with regard to the cross-national homogeneity of demand is required for product ingredients ($\beta = .63$, $p < .05$), product colour ($\beta = .40$, $p < .10$), and product packaging size ($\beta = .24$, $p < .10$) in the cosmetics industry.
<table>
<thead>
<tr>
<th>Mismatch Regarding the Cross-National Homogeneity of Demand (H1)</th>
<th>Cosmetics Industry (n = 95)</th>
<th>Food Industry (n = 108)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Name</td>
<td>-0.14*</td>
<td>0.00</td>
</tr>
<tr>
<td>- Positioning</td>
<td>-0.04</td>
<td>0.00</td>
</tr>
<tr>
<td>- Quality</td>
<td>0.02</td>
<td>0.00</td>
</tr>
<tr>
<td>- Ingredients</td>
<td>0.12</td>
<td>0.00</td>
</tr>
<tr>
<td>- Effect/taste</td>
<td>-0.20</td>
<td>0.00</td>
</tr>
<tr>
<td>- Scent/smell</td>
<td>-0.13</td>
<td>0.00</td>
</tr>
<tr>
<td>- Colour</td>
<td>0.20</td>
<td>0.00</td>
</tr>
<tr>
<td>- Packaging design</td>
<td>0.01</td>
<td>0.00</td>
</tr>
<tr>
<td>- Packaging size</td>
<td>0.06</td>
<td>0.00</td>
</tr>
<tr>
<td>- Models in product line</td>
<td>-0.04</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Mismatch Regarding the Potential for Cross-National Economies of Scale (H2)

| - Name | -0.04 | -0.02 | 0.06 | -0.05 | -0.16 | 0.41** |
| - Positioning | 0.14*** | 0.03 | -0.04 | -0.07 | -0.15* | 0.24*** |
| - Quality | -0.09 | -0.04 | 0.00 | -0.17 | -0.24* | 0.11 |
| - Ingredients | -0.09 | -0.18 | 0.27 | 0.00 | -0.08 | -0.07 |
| - Effect/taste | -0.10 | 0.26 | -0.42 | -0.17 | -0.02 | -0.03 |
| - Scent/smell | 0.47*** | 0.18 | -0.08 | 0.10 | 0.09 | -0.06 |
| - Colour | -0.31*** | -0.20 | -0.02 | 0.17 | 0.05* | -0.17* |
| - Packaging design | 0.07 | 0.06 | 0.09 | 0.10 | 0.23* | -0.25* |
| - Packaging size | 0.02 | -0.09 | 0.15 | 0.02 | 0.03 | -0.07 |
| - Models in product line | -0.12 | -0.02 | -0.03 | 0.02 | -0.01* | 0.10 |

Mismatch Regarding the Cost of Modification (H3)

| - Name | -0.05 | -0.03 | 0.03 | -0.04 | -0.07 | 0.02 |
| - Positioning | 0.04 | -0.06 | -0.10 | 0.24*** | -0.06 | 0.03 |
| - Quality | -0.05 | -0.17*** | 0.04 | -0.30*** | -0.11* | -0.01* |
| - Ingredients | -0.23*** | 0.10 | -0.19 | -0.06 | 0.01 | 0.04 |
| - Colour | 0.18* | 0.08 | 0.15 | 0.32** | 0.11 | 0.01 |
| - Packaging design | 0.14*** | -0.02 | 0.04 | -0.04* | 0.08* | -0.04 |
| - Packaging size | 0.17* | 0.12 | -0.02 | 0.12 | -0.02 | 0.01 |
| - Models in product line | 0.02 | -0.28** | 0.23** | -0.11** | -0.03 | 0.00 |

Mismatch Regarding the Foreign Price Elasticity of Demand (H4)

| - Name | 0.00* | 0.02* | -0.03 | 0.19* | 0.04* | 0.18* |
| - Positioning | 0.12 | 0.04 | 0.08 | 0.03 | 0.04 | 0.08 |
| - Quality | 0.22* | -0.03* | -0.15 | -0.04* | 0.09 | 0.13* |
| - Ingredients | 0.15 | 0.01 | 0.40* | 0.02 | 0.02 | 0.00 |
| - Effect/taste | -0.21 | 0.02 | 0.49* | -0.19 | -0.02 | -0.04 |
| - Scent/smell | -0.18 | 0.01 | 0.21 | 0.01 | -0.02 | -0.08 |
| - Colour | 0.16 | -0.05 | -0.17 | 0.12 | -0.02* | -0.02* |
| - Packaging design | 0.12 | 0.02 | 0.01 | -0.23* | -0.03* | -0.23* |
| - Packaging size | 0.11 | 0.01 | 0.10 | 0.06 | -0.02 | 0.00 |
| - Models in product line | -0.12* | -0.03* | -0.07 | 0.11* | -0.01* | 0.06 |

Adjusted $R^2$

| 0.28 | 0.16 | 0.20 | 0.31 | 0.18 | 0.21 |

Notes: All standardized path coefficients relate to the dependent variable “foreign product profit”. The differences between the industries are significant at: * $p < .001$, ** $p < .01$, † $p < .05$, ‡ $p < .10$ (according to the distribution-free PLS-MGA method; Henseler et al. 2009).

The path coefficients are significant at: *** $p < .001$, ** $p < .01$, * $p < .05$, † $p < .10$ (according to the PLS bootstrapping procedure with 95/108 cases and 1,000 samples).

Tab. 2: Fit-based profit effects of mismatch

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Das Erstellen und Weitergeben von Kopien dieses PDFs ist nicht zulässig.
With regard to H2, foreign product profit is decreased by a mismatch between the potential for cross-national economies of scale and the degree of international standardization of product quality in the food industry ($\beta = -.24$, $p < .10$) and of product colour in the cosmetics industry ($\beta = -.31$, $p < .05$). Therefore, we find partial support for H2. However, product packaging design calls for over-adaptation with regard to the potential for cross-national economies of scale in the food industry ($\beta = .23$, $p < .10$), whereas product name ($\beta = .41$, $p < .01$) and product positioning ($\beta = .24$, $p < .10$) require over-standardization.

As far as the cost of modification is concerned, a mismatch with the degree of standardization decreases foreign product profit in the case of product quality in the cosmetics industry ($\beta = -.17$, $p < .10$), product quality in the food industry ($\beta = -.30$, $p < .01$), product ingredients in the cosmetics industry ($\beta = -.23$, $p < .05$), and models in the product line in the food industry ($\beta = -.11$, $p < .05$). These results represent support for H3. In contrast, product positioning requires over-adaptation with regard to the cost of modification in the cosmetics industry ($\beta = .17$, $p < .10$), whereas models in the product line call for over-standardization ($\beta = .23$, $p < .05$).

Finally, foreign product profit is diminished by a mismatch between the foreign price elasticity of demand and the degree of international standardization of product quality ($\beta = -.15$, $p < .10$), product ingredients ($\beta = -.40$, $p < .10$), and models in the product line ($\beta = -.12$, $p < .10$) in the cosmetics industry and of product packaging design ($\beta = -.23$, $p < .05$) in the food industry, supporting H4 for these constellations. However, product effect calls for over-standardization with regard to the foreign price elasticity of demand in the cosmetics industry ($\beta = .49$, $p < .05$). Following the work by Schilke et al. (2009), we also tested a rival model based on “fit as moderation” (e. g., Xu et al. 2006). That model was found to support only the direct profit effects shown in Tab. 1 and did not reveal any significant fit-based profit effects. These results provide additional support for the appropriateness of our fit-as-matching perspective.

### 5.3. Integration of influencing variables and control variables

As the final step, we considered influencing variables and control variables in our analysis. Due to the high complexity of the resulting model and the industry-specific sample sizes, we did not conduct industry-specific analyses for these variables. Instead, the following results refer to the total sample of 203 cases. We discovered a significant effect on foreign product profit for each of the following control variables: foreign customer satisfaction ($\beta = .15$, $p < .05$) (e. g., Ittner and Larcker 1998), intensity of foreign competition ($\beta = -.20$, $p < .01$) (e. g., Ramaswamy 2001), international experience of the firm ($\beta = .16$, $p < .05$) (e. g., Delios and Beamish 2001), international standardization of pricing ($\beta = -.21$, $p < .01$) (e. g., Lages and Montgomery 2005), and international standardization of advertising ($\beta = .11$, $p < .10$) (e. g., Ko et al. 2007). However, these control variables only slightly and insignificantly increase the adjusted $R^2$ value (by .05), whereas all of the main effects in our model remain stable and significant. This provides further evidence for the robustness of our model.

To test the aforementioned influencing variables, we built a model without the distance variables from the fit-as-matching perspective, including instead the original standardization and situational fit variables. The influencing variables that were found to have a significant effect on the main variables of our model are presented in Tab. 3.

As shown in Tab. 3, several situational variables analyzed in previous research can be integrated into our model. In particular, firms pursuing a supranational/regional strategy for their products (e. g., Chung 2005) tend to adapt their products to each region ($\beta = -.42$, $p < .001$), most likely because the cost of modification can be more than compensated for by the increased regional revenue. In contrast, the degree of international product standardization is positively influenced by cross-national homogeneity of demand ($\beta = .28$, $p < .01$) as well as by centralization in purchasing and procurement ($\beta = .12$, $p < .10$) and in decision-making regarding product characteristics ($\beta = .22$, $p < .01$). These findings confirm and extend previous research in the field (e. g., Özsomer and Simonin 2004) by showing which elements of a firm’s value chain and decision-making process are most relevant to the strategy of international product standardization/adaptation. Cross-national homogeneity of demand is, in turn, positively affected by cross-national similarity in the cultural environment ($\beta = .15$, $p < .05$), in consumer preferences ($\beta = .39$, $p < .001$), and in consumer behaviour ($\beta = .14$, $p < .10$) (e. g., Katssikas et al. 2006). We also found that, as assumed by several scholars (e. g., Levitt 1983; Yip 1995), the potential for cross-national economies of scale is positively influenced by centralization in decision-making ($\beta = .12$, $p < .05$), in production ($\beta = .21$, $p < .05$), and in warehousing ($\beta = .18$, $p < .01$). Moreover, cross-national similarity in the cultural environment ($\beta = -.12$, $p < .05$) and in consumer preferences ($\beta = -.20$, $p < .01$) can lead to a decrease in the cost of modification, as the required degree of modification is low. Interestingly, a high intensity of foreign competition significantly increases the foreign price elasticity of demand ($\beta = .26$, $p < .001$), most likely because highly competitive industries are usually more price-driven (e. g., Huber et al. 1986). Fig. 2 illustrates the extended model supported by our analyses.
Influence of Variables on the Degree of International Product Standardization

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total Sample (n = 203)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-national homogeneity of demand</td>
<td>.28**</td>
</tr>
<tr>
<td>Supranational/Regional product strategy</td>
<td>-.42***</td>
</tr>
<tr>
<td>Centralization in decision-making regarding product characteristics</td>
<td>.22**</td>
</tr>
<tr>
<td>Centralization in purchasing and procurement</td>
<td>.12†</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.46</td>
</tr>
</tbody>
</table>

Influence of Variables on the Cross-National Homogeneity of Demand

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total Sample (n = 203)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-national similarity in the cultural environment</td>
<td>.15*</td>
</tr>
<tr>
<td>Cross-national similarity in consumer preferences</td>
<td>.39***</td>
</tr>
<tr>
<td>Cross-national similarity in consumer behaviour</td>
<td>.14†</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.34</td>
</tr>
</tbody>
</table>

Influence of Variables on the Potential for Cross-National Economies of Scale

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total Sample (n = 203)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centralization in decision-making regarding product characteristics</td>
<td>.12*</td>
</tr>
<tr>
<td>Centralization in production</td>
<td>.21*</td>
</tr>
<tr>
<td>Centralization in warehousing</td>
<td>.18**</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.14</td>
</tr>
</tbody>
</table>

Influence of Variables on the Cost of Modification

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total Sample (n = 203)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-national similarity in the cultural environment</td>
<td>-.12*</td>
</tr>
<tr>
<td>Cross-national similarity in consumer preferences</td>
<td>-.20**</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.08</td>
</tr>
</tbody>
</table>

Influence of Variables on the Foreign Price Elasticity of Demand

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total Sample (n = 203)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intensity of foreign competition</td>
<td>.26***</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.07</td>
</tr>
</tbody>
</table>

**Notes:** All path coefficients are standardized and significant at: *** \( p < .001 \), ** \( p < .01 \), * \( p < .05 \), † \( p < .10 \) (according to the PLS bootstrapping procedure with 203 cases and 500 samples).

Tab. 3: Significant effects of influencing variables

6. Discussion and conclusion

6.1. Major contributions and implications

This study provides further insights into the phenomenon of international standardization/adaptation by investigating the degree to which international firms have to standardize/adapt their product strategies across countries to enhance foreign product profit in a given situation. Our paper intended to integrate and advance existing knowledge in several ways.

First, we went beyond a pure description of the factors that drive international product standardization/adaptation. We followed and extended recent prescriptive work that stresses the value of strategic fit theory for identifying performance-enhancing standardization/adaptation strategies in given situations (e.g., Hultman et al. 2011; Schilke et al. 2009; Xu et al. 2006). More precisely, we built on the work by Hultman et al. (2009) and Katsikeas et al. (2006), who pointed to “fit as matching” as an appropriate approach for modelling the adaptation-performance relationship (Venkatraman 1989). Furthermore, based on the findings of Dow (2006), we distinguished among general misfit, over-adaptation, and over-standardization. Thereby, we identified not only the performance-optimal degree of international product standardization/adaptation in given situations, but also the performance effects of over-adaptation and over-standardization. We complemented the findings of Dow (2006) by showing that, depending on the situation, all three types of strategies (fit, over-adaptation, and over-standardization) can have positive effects on performance. Therefore, international firms have to carefully select their standardization/adaptation strategies based on the specific situation.

Second, we followed the “profit logic” suggested by several scholars, who have argued that performance-oriented decisions about international standardization/adaptation ultimately require a trade-off between cost and revenue considerations (e.g., Ryans et al. 2003; Samiee and Roth 1992; Shoham 1996; Shoham and Albaum 1994). In particular, we analysed the extent to which the degree of international product standardization/adaptation influences the elements of the product-profit function, depending on the situation. By doing so, we were able to develop hypotheses regarding product-profit enhancing standardization/adaptation strategies in given situations. These fit- and profit-based hypotheses were largely supported in our empirical study. The results of our study advance the existing work on the profit logic by showing that the profit effects of international standardization/adaptation vary greatly by situation. In particular, the results provide firms with situation-specific recommendations regarding profit-enhancing strategies of international standardization/adaptation.

Third, we built on previous evidence that the performance implications of international standardization/ad-
Fig. 2: Empirically supported model
1 Hypotheses supported for the following product elements and industries:
H1: product effect (cosmetics), product scent (cosmetics), product colour (food), product packaging design (food)
H2: product quality (food), product colour (cosmetics)
H3: product quality (cosmetics, food), product ingredients (cosmetics), models in product line (food)
H4: product quality (cosmetics), product ingredients (cosmetics), product packaging design (food), models in product line (cosmetics)
adaptation differ across the main elements of the marketing mix (e. g., Cavusgil and Zou 1994; Kustin 2004; Lages et al. 2008b). Focusing on product strategy, we analysed international standardization/adaptation not only at the overall product level but also at the product sub-element level, considering product name, product positioning, product quality, product features, product packaging, and models in the product line (e. g., Theodosiou and Leonidou 2003). This analysis revealed that the profit implications of international product standardization/adaptation differ widely depending on the elements of the product strategy. In addition, we demonstrated that these profit implications also vary by industry (e. g., Schlegelmilch 1986). Consequently, studies that mix different industries and those that analyse international standardization only at the overall product level run the risk of yielding statistical artefacts.

By combining the theory of fit and the profit logic, we generated several interesting findings. In particular, we documented which elements of the product strategy have to be internationally standardized/adapted, and to what degree, to enhance the product- and industry-specific profit of a firm in a given situation. On the one hand, we identified a few product elements that generally require a specific degree of standardization or adaptation regardless of the situation. These include product name, product quality, and product packaging design in the food industry. As shown in Tab. 1, product name usually calls for a high degree of international standardization, most likely because the standardization of a well-chosen product name can lead to considerable cost savings in marketing (e. g., Alashban et al. 2002). Furthermore, a standardized product name increases the potential for cross-national image spillover effects (Sullivan 1990). The same is partially true for product quality, for which a high degree of international standardization appears to be advantageous in most cases. In contrast, product packaging design calls for a high degree of international adaptation. This can be ascribed to the fact that consumers from different cultures react differently to visual stimuli and therefore to packaging design (Callow and Schifffmann 2004). As packaging design can influence consumers’ buying decisions at the point of sale (e. g., Simms and Trott 2010), international adaptation of packaging design is likely to be highly important to the success of a product.

On the other hand, as depicted in Tab. 2, the remaining product elements require individual strategies, based on the particular situation. Regarding the cosmetics industry, we found that product effect and product scent (elements that are highly relevant for demand) require a specific degree of international standardization/adaptation that fits the cross-national homogeneity of demand between the home market and the host market (H1). In the food industry, such a fit is particularly relevant for product colour. Other product elements, such as product packaging size, call for over-standardization in the cosmetics industry, potentially for cost reasons. In this context, economies of scale resulting from international standardization (H2) are especially relevant in the cost-driven food industry for the elements of product name, product positioning, and product quality. In the cosmetics industry, it is the cost of modification (H3) that leads international firms to successfully standardize their products, particularly with regard to the complex and cost-intensive elements of product ingredients and models in the product line. Finally, foreign price elasticity of demand (H4) is especially relevant in the cosmetics industry for the highly price-sensitive elements of product ingredients, product effect, and models in the product line. Overall, these results support our decision to combine the theory of fit and the profit logic and to perform differentiated analyses at both the industry- and the product-element levels.

As a final step, we included several influencing variables and control variables in our analyses to investigate the extent to which the variables analysed in previous research (e. g., Tan and Sousa 2013) can be integrated into our model. In particular, we found that firms pursuing a supranational/regional strategy (e. g., Chung 2005) tend to adapt their products to each region, perhaps because the cost of modification can be more than compensated for by the increased regional revenue. This finding helps to better understand the nature of regional strategies pursued by many international firms (e. g., Matanda and Ewing 2012; Rugman and Verbeke 2004). Furthermore, building on previous literature (e. g., Özsomer and Simonin 2004; Yip 1995), we showed that centralization in decision-making and in specific value-adding activities can positively influence the degree of international standardization and the potential for cross-national economies of scale. These results extend our knowledge of the link between the strategies of centralization, standardization, and cost leadership in the context of international business (e. g., Chung 2008; Quester and Conduit 1996; Schilke et al. 2009). Moreover, we found that cross-national similarity in certain macro- and micro-environmental conditions positively influences the cross-national homogeneity of demand and negatively affects the cost of modification. This is particularly true for cross-national similarity in the cultural environment, confirming the importance of accounting for cultural distance in the strategies of international firms (e. g., Evans 2011; Moon and Park 2011). Our control variables only slightly and insignificantly increased the adjusted R² value, which underlines the robustness of our model. In particular, we showed that foreign product profit is negatively affected by the intensity of foreign competition and by the degree of international pricing standardization (e. g., Lages and Montgomery 2005; Sousa and Bradley 2008). Integrating these influencing variables and control variables into one model may help managers to make more comprehensive strategic decisions based on a large subset of all decision-relevant factors (Shoham 1999).

The findings of our study are not only of relevance to scholars; by analysing the performance effects of product
strategy our study also helps firms to identify the degree to which they have to standardize/adapt their products across countries to enhance foreign product profit in a given situation. It is clear, however, that the variables and their values depend on a perception of managers at a specific point of time. Hence, the strategic choice to be taken at \( t_0 \) will vary from the strategic choice at \( t_1 \). Therefore, it is marketing managers’ task to constantly monitor in how far the foreign price elasticity of demand, the cost of modification, the potential for cross-national economies of scale or the cross-national homogeneity of demand change over time or remain stable. For instance, changes in consumer behaviour or new political, social or psychological trends in a given country may also lead to changes in the cross-national homogeneity of demand or in the cost of modification, and hence require a new fit.

6.2. Major limitations and directions for further research

Consistent with prior studies, the present study has several limitations that may reduce the generalizability of the results. We encourage other scholars in the field to address and overcome these limitations in future research. First, we focused on the effects of international standardization/adaptation of product strategy. Although we considered international standardization/adaptation of pricing, distribution, and communication as control variables, we did not investigate the effects of these variables in detail, including their potential interplay with product strategy decisions. Future studies should aim to transfer our fit-based profit approach to pricing, distribution, and communication, taking the multiple elements of the pricing, distribution, and communication strategies into account (e.g., Griffith 2010; Theodosiou and Leonidou 2003). In addition, future studies could test for interdependencies between the profit effects of international standardization/adaptation of the product, pricing, distribution, and communication strategies (Zou and Cavusgil 2002) and also link marketing mix standardization/adaptation to retailers’ standardization/adaptation (Elsner 2014; Rigby and Vishwanath 2006; Swoboda and Elsner 2013), which is particularly relevant in the food and the cosmetics industry.

Second, our research concentrated on the profit effects of international standardization/adaptation. Although this focus has been directly or indirectly supported by several scholars (e.g., Ryans et al. 2003; Samiee and Roth 1992; Shoham and Albaum 1994), some firms may not strive for the profit enhancement of all their products in all foreign countries. In some cases, depending on the influence of different stakeholder groups, other performance measures such as customer satisfaction or employee satisfaction can be even more important (e.g., Merrilees et al. 2005). Furthermore, considering the supranational/regional strategies pursued by many firms, the key performance measure is often not the profit in one foreign country but the profit across several foreign countries (e.g., O’Cass and Julian 2003b), such as country groups or regions. Regardless of the applied performance measure, future studies should develop their fit-based hypotheses with respect to the particular performance measure used. As mentioned earlier, defining performance as profit, revenue, or customer satisfaction leads to different hypotheses regarding profit-, revenue-, or customer-satisfaction-enhancing strategies.

Third, our empirical study focused on German firms active in the cosmetics and food industries. We cannot rule out that the results and implications of our study are, to some extent, biased by this focus. While our systematic sample selection was intended to allow for a high variance in the central constructs of our model and to maximize the generalizability of our results, future studies should test our fit- and profit-based hypotheses in other empirical settings, including other countries and industries (Birnik and Bowman 2007; Schlegelmilch 1986; Schuh 2007). This may enhance our theoretically based knowledge of how managers should take their strategic decisions on international standardization/adaptation (Ryans et al. 2003).

Notes

[1] In the international marketing context, international standardization and adaptation refers to the degree of standardization and adaptation in a foreign market as compared to the home market.

[2] In addition to these focal countries, participants could state other countries they are familiar with.

[3] The remaining responses pertain to other countries, including Australia, Egypt, Indonesia, Italy, Japan, Saudi Arabia, Spain, and the UK. All in all, we include developed as well as emerging countries so as to take the complexity facing most firms into account (see also Bahadir et al. 2015).
Appendix

<table>
<thead>
<tr>
<th>Construct</th>
<th>Literature</th>
<th>Degree of international standardization of:</th>
<th>AM</th>
<th>SD</th>
<th>α</th>
<th>VIF</th>
</tr>
</thead>
</table>

Cross-national homogeneity of demand for the product Townsend et al. (2004) (reflective single-item construct) 3.77 1.61 - -

Potential for cross-national economies of scale for the product Lim et al. (2006) (reflective single-item construct) 5.70 1.62 - -


Foreign price elasticity of demand for the product Szymanski et al. (1993) (reflective single-item construct) 4.33 1.26 - -

Foreign product profit Alashban et al. (2002), Pleshko and Souiden (2003), Dow (2006) Foreign product profit relative to: - Initial expectations regarding foreign product profit, - Highest foreign product profit possible, - Estimated foreign product profit of strongest competitor, - Estimated domestic product profit (reflective multi-item construct) 4.17 1.29 .79 -

1 All items were measured on a 7-point scale (1 = extremely low; 7 = extremely high). 2 Item omitted during scale purification.

AM = arithmetic mean; SD = standard deviation; α = coefficient alpha (for reflective multi-item constructs); VIF = variance inflation factor (for formative multi-item constructs).

Tab. A1: Construct measurement

<table>
<thead>
<tr>
<th>General Mismatch in the Cosmetics Industry:</th>
<th>General Mismatch in the Food Industry:</th>
</tr>
</thead>
<tbody>
<tr>
<td>GM1</td>
<td>GM2</td>
</tr>
<tr>
<td>-.33</td>
<td>-.36</td>
</tr>
</tbody>
</table>

Notes: GM1 = general mismatch regarding the cross-national homogeneity of demand (H1); GM2 = general mismatch regarding the potential for cross-national economies of scale (H2); GM3 = general mismatch regarding the cost of modification (H3); GM4 = general mismatch regarding the foreign price elasticity of demand (H4); FPP = foreign product profit.

Tab. A2: Correlation matrices
### Over-Adaptation in the Cosmetics Industry:

<table>
<thead>
<tr>
<th>OA1</th>
<th>OA2</th>
<th>OA3</th>
<th>OA4</th>
<th>FPP</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>-.59</td>
<td>-.36</td>
<td>.40</td>
<td>-.25</td>
</tr>
</tbody>
</table>

### Over-Adaptation in the Food Industry:

<table>
<thead>
<tr>
<th>OA1</th>
<th>OA2</th>
<th>OA3</th>
<th>OA4</th>
<th>FPP</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>.56</td>
<td>.36</td>
<td>.45</td>
<td>-.39</td>
</tr>
</tbody>
</table>

Notes: OA1 = over-adaptation regarding the cross-national homogeneity of demand (H1); OA2 = over-adaptation regarding the potential for cross-national economies of scale (H2); OA3 = over-adaptation regarding the cost of modification (H3); OA4 = over-adaptation regarding the foreign price elasticity of demand (H4); FPP = foreign product profit.

### Over-Standardization in the Cosmetics Industry:

<table>
<thead>
<tr>
<th>OS1</th>
<th>OS2</th>
<th>OS3</th>
<th>OS4</th>
<th>FPP</th>
</tr>
</thead>
<tbody>
<tr>
<td>-.59</td>
<td>-.25</td>
<td>.25</td>
<td>.81</td>
<td>.38</td>
</tr>
</tbody>
</table>

### Over-Standardization in the Food Industry:

<table>
<thead>
<tr>
<th>OS1</th>
<th>OS2</th>
<th>OS3</th>
<th>OS4</th>
<th>FPP</th>
</tr>
</thead>
<tbody>
<tr>
<td>-.25</td>
<td>.29</td>
<td>.75</td>
<td>.36</td>
<td>.38</td>
</tr>
</tbody>
</table>

Notes: OS1 = over-standardization regarding the cross-national homogeneity of demand (H1); OS2 = over-standardization regarding the potential for cross-national economies of scale (H2); OS3 = over-standardization regarding the cost of modification (H3); OS4 = over-standardization regarding the foreign price elasticity of demand (H4); FPP = foreign product profit.

### References


Example of Five CEE Countries. Working Paper Series, University of Tartu, Faculty of Economics and Business Administration, Tartu.


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