

LANGUAGES AND OTHER COUNTRY OF ORIGIN MARKERS IN ADVERTISING

Strategy choices in Dutch magazine advertisements

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1. Abstract

In order to stay competitive, it is becoming increasingly important for organizations to position their brand effectively. A brand can be positioned through cultural attributes such as COO markers in order to benefit from positive stereotypes consumers might have of certain countries. COO markers are instruments, such as foreign languages or symbols, that are used to position a brand as being part of (other) countries. Previous studies have suggested that the use of COO markers in advertisements varies for different countries and different product categories (Aichner, 2014; Alden, Steenkamp & Batra, 1999). However, it is unclear how frequently COO markers are really used in advertisements because they have never been quantified in research. The objective of the present study was therefore to quantify COO markers and learn more about the influence of country and product category on the positioning of brands. For the present study, 795 magazine advertisements from a Dutch magazine were analyzed to clarify how COO markers are manifested. It has been found that 45% of the advertisements contained a single COO marker or a combination of multiple COO markers. It turned out that COO markers were combined in 78 different ways. The findings have also confirmed the influence of country and product category on the use of COO markers. However, some results were in conflict with previous studies such as the use of the 'Made...in' statement. This turned out to be the least observed marker while this marker was suggested to occur more frequently based on previous studies. Other new insights have been obtained about the frequency with which consumers are misled by advertisements. It was found that 65% of the advertised products with a stereotypical origin, had a stereotypical origin that was different than their true origin. Overall, this study has quantified conceptualizations from previous studies and revealed best practices which can be used by practitioners in order to develop advertisements with COO strategies that are believed to be successful by other marketers.

2. Introduction

In the last decades, consumers have been increasingly faced with marketing communication for products and services of domestic and foreign companies (Johnson, 2014). Most companies depend on the success of these marketing activities and they invest a lot of money to make them successful. For example, brands such as Nike and Coca-Cola have million-dollar contracts with internationally known sportspeople and celebrities to promote their products (New York Times, 2008). Because the effectiveness of advertisements is important for almost all companies (i.e., if the advertisement is effective, more consumers will buy the product), scientific studies of effective advertising strategies can yield useful information for companies. The current research will focus on one of these strategies: the country-of-origin (COO) strategy (Samiee, 1994). This strategy states that the origin of a product may have positive or negative psychological effects on consumers. For example, Verlegh et al. (2005) found that tomatoes that were said to originate from Spain resulted in more favorable attitudes towards the product and purchase intention than tomatoes with the Netherlands as COO.

Usually advertisers try to evoke positive effects by communicating the COO of products with so-called COO markers (e.g. made in Germany) (Aichner, 2014). However, the use of COO markers in advertisements has rarely been quantified. To date, there has been no research that gives a comprehensive overview of the frequency with which COO markers are used in advertisements. In order to obtain a better understanding of COO markers and their relationship with different countries and product types, the present study focuses on the frequency of the most commonly used COO markers in advertisements. Several studies about the COO effect emphasize the functioning of languages in evoking associations with a particular nationality or consumer culture (Alden et al., 1999; Hornikx, Van Meurs, & Hof, 2013; Neelankavil et al., 1995; Piller, 2001). Most studies are, however, limited to the use of English. The current research focusses in particular on which (foreign) language combinations are used in advertisements and how languages are used to establish a connection with the original or strategically chosen origin of a brand. In the literature review outlined below, the COO strategy will be discussed more extensively. Furthermore, the gaps currently encountered in the literature with respect to the COO strategy will be indicated and why it is important to fill these gaps. The current study will be conducted to fill these gaps by examining

the following research question: “How are foreign languages and other COO markers used in Dutch magazine advertisements?”

3. Literature review

3.1. The country-of-origin strategy

The country of origin (COO) of products can be defined as the country where a product was manufactured or assembled (Bilkey & Nes, 1982). Sometimes marketers deliberately emphasize the COO of products in their advertisements since a product's COO can positively or negatively influence consumers' preferences and buying behavior' (Samiee, 1994. p. 119). When consumers have certain ethno-cultural stereotypes about the inhabitants of a country, these positive or negative stereotypes might be transferred to the products in the advertisement containing references to this COO (Hornikx et al., 2013). Applying strategies to evoke positive stereotypes can therefore enhance the image of the products in the advertisements.

In the case of the advertisement for Bertolli (see Figure 1), it is possible that consumers have preconceptions about the product's country that were created in several ways, such as previous experiences with other products originating in Italy, holidays in Italy or general knowledge (Maheswaran, 1994). In the case of the Bertolli advertisement, this stereotyping process might work as follows: consumers see a beautiful landscape that might remind them of a nice holiday in Italy. Subsequently, this can induce positive feelings because consumers might also think of the great restaurants they have visited and the tasty food they enjoyed. Advertisers deliberately try to convey those associations to the products, so they become more appealing to consumers. Furthermore, by using stereotypes, Bertolli creates the illusion that their products are authentically Italian. Bertolli is an Italian brand name and the product is presented in a typical Italian landscape. In addition, a direct reference to the region of Tuscany is made. Because in the Netherlands Italy has the ethno-cultural stereotype of having one of the best cuisines in the world and in particular with regard to pasta, consumers may ascribe the same level of quality to Bertolli products.



Figure 1. Bertolli advertisement with references to Italy (Bertolli, 2016)

According to Maheswaran (1994), consumers use these stereotypes to make predictions about other characteristics of products originating in a certain country. In general, consumers will evaluate products more favourably when they have a favourable COO (Maheswaran, 1994). Consumers have previously shaped perceptions about the quality of products originating from a particular country and based on these perceptions, other aspects of the products (like reliability) are rated.

3.2. Country of origin markers

As previously mentioned, consumers' perception of a particular product is partly influenced by its COO (Steenkamp, 1990). Logically, companies can only try to benefit from a favourable COO if consumers are made aware of it. Aichner (2014) has made an overview of different COO markers that appear in advertisements. However, it is unclear how frequently different COO markers are used in practice. The present research aims to clarify this by providing an overview of the frequency with which the following COO markers are used in Dutch advertisements:

1. 'Made in...' statements
2. Quality and origin labels
3. COO embedded in the company name
4. Typical COO words embedded in the company name
5. Use of the COO language
6. Use of famous and/or stereotypical people from the COO
7. Use of typical landscapes or famous buildings from the COO
8. Use of COO flags and symbols
9. COO embedded in the body copy

The first eight markers are based on Aichner (2014). In his study, Aichner also briefly touches upon the ninth marker but a clear description of this marker is missing. Moreover, he does not provide a clear reason for the fact that this COO marker is not discussed in more detail. In the present study, the ninth marker 'COO embedded in the body copy' will be discussed in more detail and quantified together with the other eight markers. A more detailed description of the nine COO markers can be found in Appendix A. As a clear overview of the frequency with which these different strategies are applied is missing in the literature, the aim of the present study was to conduct a quantitative analysis of the use of COO markers in advertisements. This led to the formulation of the first sub-question:

1. How frequently used are various types of COO markers in Dutch magazine advertisements aimed at consumers?

Obtaining more knowledge about the frequency and variation of COO markers in magazine advertisements could allow brands to make better choices with regard to shaping effective advertisements. More specifically, knowledge about combinations between COO markers and their use in advertisements for different product types from different countries can be useful for brands and provide suggestions for the use of COO markers. Since there are few experimental studies about the effectiveness of COO markers (Raedts & Roozen, 2013; Hornikx & van Meurs, 2017), it is likely that practitioners use them intuitively in advertisements when products are marketed. If the present study shows that certain COO markers are relatively often used, this might be an indication that practitioners think that those markers are effective. The present study will examine whether there are COO strategies of which practitioners think they are successful. As a result, practitioners who want to introduce a new product in the market can use these best practices to adopt a COO strategy that is expected to be successful.

One of the abovementioned COO markers identified by Aichner (2014) is the use of (foreign) languages. With regard to languages, a previous study (Gerritsen, Nickerson, Van Hooft, Nederstigt, Starren, & Crijns, 2007) found that English was differently used in 1,594 English magazine advertisements for fourteen product types. The highest percentages of advertisements (overall) containing English were found for products such as television broadcasting (89%), mobile phones (88%), Hotels (87%), Make up (82%), and Digital cameras

(82%). Advertisements for magazines (40%), food/ drinks (42%), and cars (62%) used English to a lesser extent. However, it is unclear whether similar differences can be found for other languages in advertisements for different product categories. To learn more about whether certain COO markers are more commonly used in combination with advertisements for specific product types, the present study also focusses on the influence of the factor product type on the use of COO markers. This had led to the formulation of the second sub-question

2. To what extent does the use of COO markers in advertisements depend on the product type?

The present study will also clarify if COO has an influence on the use of COO markers in advertisements. As was mentioned earlier, COO markers are used to take advantage of existing positive stereotypes consumers might associate with a country. Examples of such stereotypes are 'simple elegance' which is associated with the Italian language and a 'sophisticated lifestyle' that is associated with French (Haarmann, 1989). Therefore, a fashion brand that would like to express sophistication could adopt COO markers that associate the brand with France. However, studies on cultural stereotypes are not always in accordance with each other. On the one hand, some studies suggest that stereotypical images of countries are universally equal (Han & Terpstra, 1988). These findings are, however, limited to the perceptions of US consumers only. On the other hand, a number of studies have found that cultural stereotypes consumers have of other cultures might depend on the consumers' country (Aichner, 2014; Bilkey & Nes, 1982). This would imply that, for example, German consumers have stereotypes of the Netherlands which might be different from those held by French consumers. Aichner (2014) emphasizes how important it is for advertisers to know their audience well and realize that populations might differ in the stereotypical images they have of other cultures. The COO marker Use of famous or stereotypical people from the COO for example, requires knowledge about the extent to which this famous or stereotypical character is known in the target market. For example, most Dutch consumers might know who the German model Claudia Schiffer is. Therefore, an image of Claudia Schiffer could potentially be used as a COO marker (use of famous and/ or stereotypical people from the COO) in advertisements aimed at Dutch consumers. In contrast, a country like Hungary that is less related to the Netherlands, probably also has a well-known model but she might be less known

to the Dutch public. Therefore, imagery of the Hungarian model could be less effective as a COO marker for the Dutch market since the model might not recall recognition among Dutch consumers. However, despite the fact that some cultures (e.g. Germany) have more stereotypical images than other cultures (e.g. Hungary) (Haarmann, 1989) for Dutch consumers, it is still unclear whether for example a German marketer uses more COO markers than a Hungarian marketer to profit from existing (German) stereotypical images. Differences in stereotypical images consumers have of countries might also affect the use of languages in advertisements. Since the German language is recognizable for Dutch consumers and relatively easy to understand, a German producer might be more inclined to use German in advertisements than a Hungarian producer Hungarian.

In order to find out whether practitioners from different countries actually use languages and stereotypical images differently, the present study will examine the influence of the factor country on the use of COO markers. As a result, the current study might clarify whether brands from different cultures have preferences for certain COO markers. This led to the formulation of the third sub-question.

3. To what extent does the use of COO markers in advertisements depend on the COO of the brand?

3.3. The use of foreign languages

A COO marker that has received much attention is Use of foreign languages. Several previous studies have focused on the effects (Hornikx et al., 2013) and frequencies (Neelankavil et al., 1995; Piller, 2001) of foreign languages in advertisements. Some of these studies show that foreign languages have different effects on consumers. In a study by Hornikx et al. (2013), Dutch participants assessed the effectiveness of advertisements in which the language of the slogans was manipulated. The authors measured perceived quality, attitude towards the product and purchase intention for advertisements with slogans in the languages French, German, and Spanish. A number of advertisements contained slogans in a language that was not congruent with the advertised product (e.g. French-beer). It turned out that the use of foreign languages in slogans led to a higher perception of product quality, better attitude towards the product and higher purchase intentions for congruent products (French-wine). However, language congruence was not equally important for all three languages. Because

Hornikx et al. (2013) do not clarify whether marketers pay attention to product and language congruency in practice, the present study tries to fill this gap by examining whether the languages used in the advertisements are congruent with the stereotypical origin of the products.

Traditionally, much attention has been focused on the use of English in advertising. Some studies show that English is frequently used in advertisements from European countries in which English is not the native language. For instance, Piller (2001) analyzed a corpus of over six hundred German television commercials and four hundred advertisements from German national newspapers to investigate multilingual advertising in Germany. She found that more than 70% of the examined advertisements contained a language other than German. In 70% of the advertisements some form of English was used, followed by French (8%), Italian (6%), and a number of other languages. A study by Gerritsen et al. (2007) made a comparison between five European countries in the use of English for six editions of the glossy magazine *ELLE*. The study showed that 67% of the advertisements contained English. Similar results were found in Greek advertisements in printed media (Sella, 1993). Here it turned out that only 43.4% of the advertisements exclusively used the Greek language. Most of the advertisements used combinations of either Greek and English or Greek and French. Previous studies (Piller, 2001; Sella, 1993) quantified a variety of languages but did not examine all other foreign languages that might occur in advertisements. Therefore, the present study will examine all foreign languages that can be encountered in print medium advertisements to provide a better understanding of the spectrum of languages that are used.

On the basis of the abovementioned studies (Piller, 2001; Sella, 1993), it can be concluded that combinations of foreign languages appear in advertisements. A further examination of the use of language combinations in advertisements can add value because the number of studies that examine language combinations is rather limited. Even less is known about combinations with other COO markers. Aichner (2016) mentions examples of organizations who use up to five COO markers in their advertisements to leave no doubt about the origin of the product. He further states that a majority of organizations use a combination of two or more markers that differ in complexity, while some organizations use only one single marker. However, the study does not specify how often combinations of markers occur.

A subject that is related to the studies of Aichner is described by Alden et al. (1999). In their study on consumer culture positioning strategies, Alden et al. describe how

indicators are used in advertising to position a brand as part of either a local culture (e.g. typical Dutch sausage), a foreign culture (e.g. big American pizza), or a global culture (e.g. United Colors of Benetton). Foreign languages are one of these indicators and might be used as follows: English can be used to associate a brand with a global consumer segment, foreign languages other than English can be used to position a brand as part of a foreign culture (e.g. Bitte ein Bit), and local languages can be used to position a brand as being part of the local culture (e.g. Johma advertisements that use the slogan 'oet Twente'). Based on the study by Alden et al. (1999), it can further be concluded that multiple indicators are frequently used in combination with each other to strengthen the connection between an advertised product and a consumer culture. However, Alden et al. give no indication of how often combinations of indicators occur. As Alden et al. (1999) noted, for example, some advertisements use mixed strategies of elements from both foreign, local and global cultures. However, Alden et al. showed that it is probably more effective not to use mixed strategies of cultures because this can be confusing for consumers. This raises the question whether COO markers are also used in combination, and if so, what combinations are mostly used. This has led to the formulation of the fourth research sub-question.

4. To what extent are foreign languages used with each other and in combination with other COO markers?

3.4. Position of foreign languages and other COO markers in advertisements

Advertisers tend to insert foreign languages in specific parts of advertisements. Bhatia (2001) distinguishes four parts of advertisements in which foreign languages can be used: the product name, headline, slogan and body copy. His research showed that when English occurred in the body copy of the text, it could usually also be found in the other three parts of the advertisement. However, when English was used in the product name, it was rarely found in the body copy. These findings seem to contradict each other but Bhatia (2001) explained this as follows: 'The onset of English penetration begins with naming, and then spreads to other domains. The reversal of this process is not plausible' as cited from Bhatia (2001, p.71). Leech (1966) made a distinction between five parts of an advertisement, namely: the headline, illustrations, the body copy, the signature line (e.g. brand name accompanied by a slogan), and standing details (e.g. utilitarian information and where a product can be purchased). In

addition, Piller (2001) noted that the standing information and the body copy hardly ever contained English in German advertisements. On the other hand, German advertisements often used slogans and headlines containing English. Furthermore, Piller (2001) suggested that English is frequently used in slogans and headlines of advertisements with the aim to attract attention. Processing a foreign language requires a larger cognitive effort, causing the consumer to keep his/her attention to the advertisement. The studies by Bhatia (2001) and Piller (2001) have indicated in which parts of advertisements English is used most often. However, it is still unclear in which parts of advertisements other foreign languages occur the most. According to Piller (2001) other foreign languages might be used in similar parts of advertisements as English. However, this has not yet been examined. Apart from foreign languages (except English), it also remains unclear in which parts of advertisements other COO markers are used. As a result, new insights can be obtained by assessing how languages and other COO markers are used in different parts of advertisements. This has led to the formulation of the fifth research sub-question:

5. In which parts of the advertisements are foreign languages and other COO markers most commonly used?

4. Method

4.1. Materials

Because of their deep-rooted connection with culture, food products are usually thought of as the product category that is often consumed in a way that is typical of the local culture of the producer (Alden et al., 1999). Other studies suggest that the food processing industry is one of the most important industries in terms of image building of a COO (Moschini et al, 2008). Almost every culture has typical dishes. It was expected that foreign languages and other COO markers would be particularly used in advertisements for food products to emphasize their origin and evoke cultural stereotypes. Therefore, advertisements of the Dutch monthly magazine *Allerhande* were chosen for the analysis. This magazine is the advertising magazine of the Dutch supermarket chain Albert Heijn and contains many advertisements concerning food products. According to the circulation figures mentioned on the website of Albert Heijn (Albert Heijn, 2016), two million copies of *Allerhande* are printed each month. In total, *Allerhande* has 4.5 million readers, which makes it one of the most widely read magazines in the Netherlands (Albert Heijn, 2016). In addition, *Allerhande* is available for free in all eight hundred Albert Heijn supermarkets across the Netherlands (Albert Heijn, 2016).

All advertisements that consisted of half a page or more were analyzed for twelve editions of the magazine from the year 2015. This resulted in a selection of 795 advertisements of half a page or more. Smaller advertisements were not included because it has been found that small advertisements (sometimes only one-sixteenth of a page) often come from smaller companies with fewer budget (Gerritsen et al., 2007). These companies seem less professional in designing advertisements. The advertisements were used with the permission of Ahold Delhaize N.V., which provided the advertisements in PDF form. By including all the editions of a whole calendar year, potential seasonal influences were minimized (Neuendorf, 2002, p. 54). For instance, scenery of the Alps may occur more often in the seasons winter or fall than in summer or spring. Advertisements that were previously observed (e.g. in other editions) were included in the sample.

During the analysis of the *Allerhande* magazine, it appeared that products were regularly presented by means of a review of multiple products by an editor of *Allerhande* or an Albert Heijn employee. These product reviews were not included in the corpus because

they were not clearly distinguishable from editorial content and were not purely advertisements.

4.2. Procedure

The analysis of the advertisements was carried out by two native Dutch coders. The researcher coded all 795 advertisements from 12 editions of *Allerhande*, while the second coder (a former corporate communication student with a Master's degree) analyzed a total thirty advertisements. Both coders worked independently from each other. A coding scheme was used to analyze the sample. The coders first studied the coding scheme together in a joint training session, so that the interpretation of the scheme corresponded as much as possible between the two coders. Before starting with the actual analysis, both coders independently ran a pilot test of twenty advertisements that did not belong to the original corpus. For the pilot test, advertisements were used from the January 2017 edition of *Allerhande*. Subsequently the coding scheme was adjusted based on the outcome of the pilot test and the discussion of different interpretations. During the discussion of the coding scheme, the focus was on reaching agreement on the interpretation of the main aspects: Parts of the text within the advertisement, position of foreign languages, and identifying COO markers. When both coders had reached corresponding views, the coding scheme was used as a guideline for the analysis of the advertisements.

In the present study, intercoder reliability was assessed through the Cohen's Kappa to make sure the coders had the same interpretation of the advertisements in the corpus. To measure reliability, a selection of advertisements was used from the sample. According to Neuendorf (2002), there is no standard for determining the size of this selection. The ideal size is related to the source of the material and the variables examined. Some researchers prefer a percentage of the total material, for example five or ten percent. As a rule of thumb, Neuendorf (2002, p. 159) states that a minimum of fifty units needs to be included in the selection and that rarely more than 300 units are needed. An exploratory analysis of two editions of *Allerhande* showed an average of 70 advertisements, distributed over 199 pages. This means that twelve editions of *Allerhande* could contain approximately 840 advertisements. However, due to the time required for coding, it was not feasible for the second coder to calculate Cohen's Kappa with more than thirty advertisements (3.75%).

The coding process started with step 1, where the coders had to indicate the brand name of the advertised product (see Appendix B for the coding scheme). Since the origin of a brand might influence the occurrence of COO markers, the second step in the coding scheme consisted of the identification of the actual origin of the brand. However, identifying the actual COO of a brand can be complex, as companies increasingly manufacture hybrid products nowadays, assembled with different parts from around the world (Vianelli & Marzano, 2012). In order to make identification of the brands' COO easier, both coders analyzed the country of brand (COB). COB is defined by Vianelli and Marzano (2012) as the country in which the brand was originally founded. Information on COB was collected by analyzing the website of the brand. Here, often information could be found about the founders and origin of the brand. When a certain brand was part of a large food company (e.g. Nestle), the COB could be traced using the WIPO global brand database (WIPO, 2017). This is a database that registers all international trademarks.

During the pilot test, the coders had noticed that some companies advertise products that are usually not associated with their COB. The German brand Dr. Oetker that advertises authentic Italian Pizzas is such an example (pizzas are usually not associated with Germany). Therefore, the third step in the coding scheme was an indication of the Stereotypical origin of the advertised product. For the present study, COB and stereotypical origin of the product were coded separately in order to find out whether the actual origin of the brand or the Stereotypical origin of the product was communicated more often. During the analysis it became clear that not all products have a stereotypical origin. Examples of such products are honey, soups and baking powder. For these products, no Stereotypical origin was indicated. Sometimes it could be difficult to indicate a specific Stereotypical origin. Take for example coffee. Sometimes advertisements for coffee placed a strong emphasis on Italy. In such cases Italy was indicated as the Stereotypical origin; otherwise the Stereotypical origin was Brazil.

During the fourth step in the coding scheme, the coders indicated whether the advertised product was a food product. If the coders were confronted with advertisements for food products, the type of food product (e.g. pasta, wine) was marked. For the coding of food product type, a classification of products types was used based on the American food and drug administration, as mentioned on their website (Food and drug administration, 2016). A list of all the different food product types can be found in Appendix C.

If the coders were faced with advertisements for non-food products (e.g. a toaster), these products were coded based on the following classification by Alden et al. (1999). 1.) personal nondurables, 2.) household nondurables, 3.) lower-technology consumer durables, 4.) higher-technology durables, 5.) consumer services, 6.) business goods, 7.) business services, 8.) and others. The following definitions were used for the identification of non-food products:

- 1.) Personal nondurables are frequently replaced goods that consumers use to take care of their body (e.g., shampoo and toothpaste) (<https://www.oxforddictionaries.com/>).
- 2.) Household nondurables are goods that are frequently bought by consumers for use in or around the house (e.g., bleach and dishwashing soap) (<http://businessdictionary.com>).
- 3.) Lower technology consumer durables are goods that are less developed, use a relatively easy technique, last a long time, and are not expected to be bought frequently (e.g., tables and tea kettles) (<http://businessdictionary.com>).
- 4.) Higher technological durables are goods that use a sophisticated technique, last for a long time, and are expected not to be purchased frequently (e.g., laptops and motorcycles) (<https://www.oxforddictionaries.com/>).
- 5.) Consumer services are the range of services provided to the consumer of a product by the company that produces, markets, or supports the product (e.g., brokers or mortgage lenders are examples) (<http://businessdictionary.com>).
- 6.) Business goods are goods that are used daily by companies (e.g., office supplies) (<https://www.oxforddictionaries.com/>).
- 7.) Business services are services provided by specialized companies to other companies (e.g., printing, accounting, webhosting) (<https://www.oxforddictionaries.com/>).
- 8.) Others are all non-food products that cannot be classified in any of the above mentioned categories.

With regard to the parts of the text where languages and other COO markers could be located, the present study used a division of advertisements as described by Gerritsen et al. (2007). For their quantitative analysis of English in advertisements, they divided advertisements into headline, body copy, slogan, standing details, picture, and product name. This division is selected for the present research as it makes a more detailed distinction (six parts of the text) compared to Bhatia (2001) (four parts of the text) and Leech (1966) (five parts of the text). Based on an unpublished study (de Vries, 2015), it can be

concluded that the element slogan is a broad concept that requires further explanation. The present study distinguishes between slogans and payoffs as elements of advertisements that are slightly different (Wong, 2012). A payoff is a short, powerful phrase that can be associated with the company name. For example, 'the happiest place on earth' that is used by Disneyland (see figure 2) represents the feeling and tone that the company would like to express for its products and services (Wong, 2012). The main difference with slogans is that the payoff is often part of the company logo and remains unchanged most of the time while slogans are often used temporarily for a particular product or campaign. For example, the following slogans were used over the years by Disneyland while the payoff always stayed the same: "Where dreams come true", "I'm going to Disneyland", "Where the magic began", "Happiest homecoming on Earth". Sometimes it could be tricky to determine the difference between a slogan and pay-off. The criterion of the researcher was whether the brand had used other slogans in the past. In this case the slogan was categorized as a slogan. In contrast, when the phrase had a permanent character it was classified as a pay-off.



Figure 2. Example of a pay-off that remained unchanged though time (Quora, 2016)

The fifth step in the coding scheme was an indication of which of the parts of advertisements were present. The coders marked the following parts of the text if they were present: 1.) headline, 2.) body copy, 3.) slogan, 4.) payoff, 5.) standing details, 6.) and product name. For the present study the element *picture* is further specified into 7.) picture (background/other), 8.) picture (product), 9.) picture (product packaging) because from an exploratory analysis it appeared that the element picture can consist of the product itself, product packaging, and/or the background.

The sixth step in the coding scheme consisted of identifying the use of any COO markers. The categorization of COO markers was mainly based on Aichner (2014), who distinguished between the first eight categories: 1.) 'Made in...' statements (e.g. the text *prodotto Italiano* in a Grand 'Italia advertisement), 2.) Quality and origin labels (e.g. the label *certified Aberdeen Angus* in an advertisement from the Dutch Butcher's shop Herman Eppink), 3.) COO embedded in the company name (e.g. an advertisement for bread from the brand *Délifrance* or an advertisement for Ice tea from the beverage brand *Arizona*), 4.) Typical COO embedded in the company name (e.g. beer brand *Desperados*), 5.) Use of the COO language (e.g. the word *classico* in a Bertolli advertisement), 6.) Use of famous or stereotypical people from the COO (e.g. brand for Asian food products *Go-Tan* uses people with traditional Asian clothing in their advertisements), 7.) Use of COO flags and symbols (e.g. Chocolate brand *Milka* uses imagery of a purple cow with a bell around her neck in the Alps), 8.) Use of typical landscapes and famous buildings from the COO (e.g. the South African wine brand *Stormhoek* uses imagery of the Table Mountain in their advertisements), 9.) and COO imbedded in the body copy (e.g. Dutch beer brand *Amstel* uses the phrase *de favoriete Radler van Nederland* in their advertisements).

The seventh step in the coding scheme consisted of indicating whether a foreign language was used in each individual advertisement. Languages were coded based on a dummy coding (not present vs. present) for the most common foreign languages 1.) English, 2.) French, 3.) German, 4.) Spanish, 5.) Italian, 6.) and others (Indian, Indonesian, Japanese, and Swedish). When the six language variables were coded as Not Present, this meant that the advertisements contained exclusively Dutch language. Subsequently, the coders marked in which part(s) of the advertisement foreign language was encountered.

During the eight step in the coding scheme, the total number of words in the advertisement was counted and the number of words per foreign language was specified. It

was important to first clearly define the definition of a word in order to determine how many words were used in different languages.

Based on a previous study by van Meurs et al. (2007), a word is defined as 'A written or printed character or combination of characters appearing between spaces, or between a space and a punctuation mark (Merriam-Webster Online Dictionary, 2016). Abbreviations such as *BBQ* and compound nouns like *toothpaste* were therefore counted as single words. To determine whether a word was classified as a foreign language, the Dutch Van Dale dictionary (Boon & Hendricks, 2015) was used as a criterion. For example, when a word like *pizza* was noted in a Dutch phrase or sentence it was identified as a Dutch word because it has an entry in the Van Dale dictionary. On the other hand, a word like *Tradizionale* was labeled as a foreign language because it does not occur in the Van Dale dictionary. The context in which the word was placed in the advertisements also helped to determine whether a word was seen as Dutch or foreign. For example, a word like *pasta* was basically considered to be Dutch, but could be classified as foreign (Italian) if it occurred in a phrase in which the remaining words were in Italian. E.g. *Pasta per Zuppa* (pasta for soup).

4.3. Reliability

In the present study reliability of the abovementioned variables was tested by means of the Cohen's Kappa. It turned out the reliability of the variable Product Type (food/ non-food) was good (.93). Furthermore, the reliability of the variables Foreign languages (.77), COO markers (.74), and Positions (.75) were found to be adequate. In general, the coders agreed with each other adequately. However, due to the limited sample size the results of the variables have to be interpreted with caution.

4.4. Statistical tests

After the coding process all the data was imported into SPSS 24 (IBM, 2015). Next, the frequencies for the separate COO markers, languages, positions and food types were calculated. Scores for each attribute on COO marker and language were grouped to create all possible combinations. Chi-square test were performed to test the following relationships: Product category and COO markers, Product category and combination of COO markers, COB and stereotypical origin (goodness of fit), COB and COO markers, Stereotypical origin and COO markers, Language and stereotypical origin, COB and combination of COO markers,

Stereotypical origin and combination of COO markers, Foreign languages among each other, Combination of foreign language and COO markers, and Position and COO markers. Individual differences were examined using the residual score. To examine any interesting pairwise differences in proportion, a paired proportion z- test (online calculator) was used. To examine differences in the average word count between languages, a one-way ANOVA test with Turkey post-hoc testing was performed. For all analyses a significance level of 5% was used.

5. Results

In this section, the results of the corpus analysis of advertisements from the *Allerhande* magazine are presented. The results will provide an answer to the main research question of this study ‘How are foreign languages and other COO markers used in Dutch magazine advertisements?’

5.1.1. COO Markers

The first research question of this study was to examine how frequently various types of COO markers in Dutch magazine advertisements were used. Table 1 displays the frequencies and percentages for COO markers in the advertisements. In the majority of the advertisements no COO markers were found. The markers Typical COO words embedded in the company name (25%) and COO embedded in the body copy (21%) were observed most frequently while the markers Quality and origin labels (4%) and ‘Made in...’ statements (4%) were the least common.

Table 1: Types of COO markers used in the advertisements in numbers and percentages ($N = 795$)

Type of COO Marker	<i>n</i>	%
No COO marker present	395	55%
Typical COO words embedded in the company name	199	25%
COO embedded in the body copy	168	21%
Use of the COO language	98	12%
Use of typical landscapes or famous buildings from the COO	88	11%
COO embedded in the company name	69	9%
Use of COO flags and symbols	61	8%
Use of famous or stereotypical people from the COO	56	7%
Quality and origin labels	31	4%
‘Made in...’ statements	30	4%

5.1.2 Word count and language

Since the present study has a specific focus on languages, the frequency of the COO marker Use of COO language was not only indicated but also the average number of words in foreign languages that were used in the advertisements. The results in Table 2 show that English was

not only the most commonly used foreign language but also occurred with the highest average number of words. In order to examine whether there are differences between the number of words used in each foreign language, a one-way ANOVA test with Post-hoc Turkey tests was performed and yielded significant variation among the conditions. A one-way ANOVA for number of words and foreign languages showed a significant difference ($F(5,66) = 2.48, p = .031$). This means differences can be found between languages in the numbers of words used. However, this was not revealed by the Post-hoc Turkey tests. Table 2 shows that 474 advertisements contained English with an average of 9.62 English words per advertisement. The languages Swedish, Indonesian, Japanese, and Indian were found in seven advertisements in total and showed the lowest average of words per advertisement in which one of these languages was found. Based on these frequencies it can be concluded that English probably significantly differs from the other conditions. However, this may not be concluded based on the Post-hoc Turkey tests.

Table 2: Descriptive statistics for the average number of words in each foreign language per advertisement

Foreign language	<i>n</i>	<i>M</i>	<i>SD</i>
English	474	9.62	10.02
French	94	7.06	6.98
Italian	38	6.50	5.22
Spanish	33	7.27	5.54
German	15	6.33	3.31
Other languages	7	6.00	4.36

5.2.1. Product types

The aim of the second research question (To what extent does the use of COO markers in advertisements depend on the product type?) was to clarify whether the product category had an influence on the use of COO markers. The following paragraphs will contribute to answering the third research question: Frequencies of product categories, relationship between Product categories and individual COO markers, relationship between Product categories and combinations of COO markers, differences between Product categories and

COO markers. Table 3 shows the frequencies and percentages for all the different product types (food and non-food) that occurred in the total sample.

Table 3: Advertised product types in the sample in numbers and percentages ($N = 795$)

Product type	Example of brand	Frequency	Percentage
Non-food categories			
Personal non-durables	e.g. Listerine	27	3.4%
Consumer services	e.g. Staatsloterij	21	2.6%
Household nondurables	e.g. Vanish	19	2.4%
Lower technology consumer durables	e.g. Dolce Gusto	7	0.9%
Business services	e.g. Post NL	3	0.4%
Consumer goods	e.g. Hallmark	2	0.3%
Business goods	e.g. Bic	1	0.1%
Total non-food products		76	9.6%
Food categories			
Sauce, gravy, and seasoning mixes (garnish)		70	8.8%
Wine (beverages)		57	7.2%
Coffee and Tea (beverages)		50	6.3%
Dairy Miscellaneous (dessert type foods)		43	5.4%
Carbonated soft drink (beverages)		36	4.5%
Candies and gums (snacks)		32	4%
Candies chocolate (snacks)		32	4%
Snacks, popcorn, pretzels, and chips (snacks)		28	3.5%
Beer (beverages)		28	3.5%
Dips and spreads (garnish)		25	3.1%
Juices shelf stable (beverages)		24	3.1%
Cheese (dessert type foods)		23	2.9%
Meat (meal type foods)		23	2.9%
Butters, margarines, and spreads (baking products)		22	2.8%
Beverage dairy (beverages)		21	2.6%
Breakfast foods (meal type foods)		21	2.7%
Meals frozen (meal type foods)		19	2.4%
Seafood (meal type foods)		16	2%
Salt, seasoning and spices (baking products)		14	1.8%

Baby foods (meal type foods)	13	1.6%
Crackers (snacks)	12	1.5%
Meals shelf stable (meal type foods)	12	1.5%
Beverage mixes (beverages)	12	1.6%
Soups (meal type foods)	11	1.4%
Breading products (baking products)	11	1.4%
Fresh fruit (dessert type foods)	10	1.2%
Cookies (snacks)	10	1.3%
Snacks/ granola bars/ trail mixes (snacks)	8	1%
Breads and baked goods (frozen) (baking products)	8	1%
Baking mixes (baking products)	7	0.9%
Sugar and sugar substitutes (snacks)	7	0.9%
juices/ drinks refrigerated (beverages)	3	0.4%
Vegetables shelf stable (meal type foods)	3	0.4%
Breads (fresh and shelf stable) (baking products)	3	0.4%
Pasta (meal type foods)	2	0.3%
Eggs and eggs substitutes (baking products)	1	0.1%
Pudding and gelatins (dessert type food)	1	0.1%
Syrups (garnish)	1	0.1%
Total	795	100%

Within this sample 719 advertisements were food related (90%) and 76 were non-food related (10%). The food related products were categorized based on a list of 59 product types (Food and Drug Administration, 2016). Subsequently, these 59 different product types were classified into six different categories based on the food and drug administration (2016), namely: Beverages, Baking products, Meal type products, Garnish, Snacks, and Dessert type foods. Table 4 shows the frequencies and percentages with which COO markers were found in advertisements for different Product categories.

Table 4: COO Markers by product category in the advertisements in numbers and percentages ($N = 795$).

COO marker	Beverages <i>N</i>	Baking products <i>N</i>	Meal type foods <i>N</i>	Garnish <i>N</i>	Snacks <i>N</i>	Dessert type foods <i>N</i>	Non- food <i>N</i>	
- No COO-marker present ($n = 454$)	120	30	59	49	92	46	58	454
% in COO marker	(26.4%)	(6.6%)	(13%)	(10.8%)	(20.3%)	(10.1%)	(12.8%)	
% in productgroep	(54.8%)	(45.5%)	(56.7%)	(46.2%)	(75.4%)	(45.1%)	(76.3%)	
- 'Made in...' statements ($n = 30$)	15	0	5	2	1	7	0	30
% in COO marker	(50%)	(0%)	(16.7%)	(6.7%)	(3.3%)	(23.3%)	(0%)	
% in productgroep	(6.8%)	(0%)	(4.8%)	(1.9%)	(0.8%)	(6.9%)	(0%)	
-Quality & Origin labels ($n = 32$)	15	3	1	0	5	6	2	32
% in COO marker	(46.9%)	(9.4%)	(3.1%)	(0%)	(15.6%)	(18.8%)	(6.3%)	
% in productgroep	(6.8%)	(4.5%)	(1%)	(0%)	(4.1%)	(5.9%)	(2.6%)	
-COO embedded in name ($n = 69$)	19	11	7	11	2	14	5	69
% in COO marker	(27.5%)	(15.9%)	(10.1%)	(15.9%)	(2.9%)	(20.3%)	(7.2%)	
% in productgroep	(8.7%)	(16.7%)	(6.7%)	(10.4%)	(1.6%)	(13.7%)	(6.6%)	
-Typical COO words in name ($n = 199$)	69	15	26	29	13	37	10	199
% in COO marker	(34.7%)	(7.5%)	(31.1%)	(14.6%)	(6.5%)	(18.6%)	(5%)	
% in productgroep	(31.5%)	(22.7%)	(25%)	(27.4%)	(10.7%)	(36.3%)	(13.2%)	
-Use of COO Language ($n = 98$)	36	14	11	12	8	14	3	98
% in COO marker	(36.7%)	(14.3%)	(11.2%)	(12.2%)	(8.2%)	(14.3%)	(3.1%)	
% in productgroep	(16.4%)	(21.2%)	(10.6%)	(11.3%)	(6.6%)	(13.7%)	(3.9%)	
-Famous/stereotypical People ($n = 56$)	22	0	6	7	6	7	8	56
% in COO marker	(39.3%)	(0%)	(10.7%)	(12.5%)	(10.7%)	(12.5%)	(14.3%)	
% in productgroep	(10%)	(0%)	(5.8%)	(6.6%)	(4.9%)	(6.9%)	(10.5%)	
-COO flags and/or Symbols ($n = 61$)	13	7	12	13	5	8	3	61
% in COO marker	(21.3%)	(11.5%)	(19.7%)	(21.3%)	(8.2%)	(31.1%)	(4.9%)	
% in productgroep	(5.9%)	(10.6%)	(11.5%)	(12.3%)	(4.1%)	(7.8%)	(3.9%)	

-COO landscapes and/or buildings (<i>n</i> = 88)	35	1	10	16	10	15	1	88
% in COO marker	(39.8%)	(1.1%)	(11.4%)	(18.2%)	(11.4%)	(17%)	(1.1%)	
% in productgroep	(16%)	(1.5%)	(9.6%)	(15.1%)	(8.2%)	(14.7%)	(1.3%)	
-COO embedded in body copy (<i>n</i> = 168)	47	21	17	43	12	25	3	168
% in COO marker	(28%)	(12.5%)	(10.1%)	(25.6%)	(7.1%)	(14.9%)	(1.8%)	
% in productgroep	(21.5%)	(31.8%)	(16.3%)	(40.6%)	(9.8%)	(24.5%)	(3.9%)	
Total number of ads	219	66	104	106	122	102	76	795

The food product type sauce, gravy, and seasoning mixes was most strongly represented with 70 occurrences. There was also a relatively large number of advertisements for wine (57), coffee/ tea (50), and dairy miscellaneous (43). The food product types eggs/eggs substitutes, pudding/gelatins, and syrups represented the least observed groups with only one occurrence each.

5.2.2. Relationship between Product categories and individual COO markers

Apart from the relationship between individual COO markers and Product categories, the present study also examined whether combinations of COO markers were used differently depending on the Product Category in the advertisement. In Table 4, the frequency and percentage of each COO marker within a Product Category is displayed (see Table 3 for the classification of the product types). Potential differences were tested by means of nine Chi-square tests between each COO marker and the product categories Beverages, Baking products, Meal type foods, Garnish, Snacks, and Dessert type foods. The results of the Chi-square tests showed a significant difference between the six Product categories in 1.) the number of COO markers in advertisements relative to the total use of COO markers 2.) the relative number of COO markers within a Product category. Table 5 shows the Chi-square values for the relationship between Product categories and individual COO markers.

Table 5: Chi-square test of the relationship between product category and individual COO markers

COO marker	Beverages <i>N</i>	Baking products <i>N</i>	Meal type foods <i>N</i>	Garnish <i>N</i>	Snacks <i>N</i>	Dessert type foods <i>N</i>	Non-food <i>N</i>	χ^2	<i>p</i>
'Made in...' statements (<i>n</i> = 30)	15 (50%)	0 (0%)	5 (16.7%)	2 (6.7%)	1 (3.3%)	7 (23.3%)	0 (0%)	30.65	.000
% in COO marker	(6.8%)	(0%)	(4.8%)	(1.9%)	(0.8%)	(6.9%)	(0%)		
% in productgroep									
Quality & Origin labels (<i>n</i> = 32)	15 (46.9%)	3 (9.4%)	1 (3.1%)	0 (0%)	5 (15.6%)	6 (18.8%)	2 (6.3%)	33.99	.000
% in COO marker	(6.8%)	(4.5%)	(1%)	(0%)	(4.1%)	(5.9%)	(2.6%)		
% in productgroep									
COO embedded in name (<i>n</i> = 69)	19 (27.5%)	11 (15.9%)	7 (10.1%)	11 (15.9%)	2 (2.9%)	14 (20.3%)	5 (7.2%)	7.51	.000
% in COO marker	(8.7%)	(16.7%)	(6.7%)	(10.4%)	(1.6%)	(13.7%)	(6.6%)		
% in productgroep									
Typical COO words in name (<i>n</i> = 199)	69 (34.7%)	15 (7.5%)	26 (31.1%)	29 (14.6%)	13 (6.5%)	37 (18.6%)	10 (5%)	28.82	.000
% in COO marker	(31.5%)	(22.7%)	(25%)	(27.4%)	(10.7%)	(36.3%)	(13.2%)		
% in productgroep									
Use of COO Language (<i>n</i> = 98)	36 (36.7%)	14 (14.3%)	11 (11.2%)	12 (12.2%)	8 (8.2%)	14 (14.3%)	3 (3.1%)	22.29	.000
% in COO marker	(16.4%)	(21.2%)	(10.6%)	(11.3%)	(6.6%)	(13.7%)	(3.9%)		
% in productgroep									
Famous/stereotypical People (<i>n</i> = 56)	22 (39.3%)	0 (0%)	6 (10.7%)	7 (12.5%)	6 (10.7%)	7 (12.5%)	8 (14.3%)	12.26	.031
% in COO marker	(10%)	(0%)	(5.8%)	(6.6%)	(4.9%)	(6.9%)	(10.5%)		
% in productgroep									
COO flags and/or Symbols (<i>n</i> = 61)	13 (21.3%)	7 (11.5%)	12 (19.7%)	13 (21.3%)	5 (8.2%)	8 (31.1%)	3 (4.9%)	25.92	.000
% in COO marker	(5.9%)	(10.6%)	(11.5%)	(12.3%)	(4.1%)	(7.8%)	(3.9%)		
% in productgroep									

COO landscapes and/or buildings (<i>n</i> = 88)	35	1	10	16	10	15	1	39.87	.000
% in COO marker	(39.8%)	(1.1%)	(11.4%)	(18.2%)	(11.4%)	(17%)	(1.1%)		
% in productgroep	(16%)	(1.5%)	(9.6%)	(15.1%)	(8.2%)	(14.7%)	(1.3%)		
COO embedded in body copy (<i>n</i> = 168)	47	21	17	43	12	25	3	39.43	.000
% in COO marker	(28%)	(12.5%)	(10.1%)	(25.6%)	(7.1%)	(14.9%)	(1.8%)		
% in productgroep	(21.5%)	(31.8%)	(16.3%)	(40.6%)	(9.8%)	(24.5%)	(3.9%)		

A Chi-square test between Product category and 'Made in...' statements showed a significant relation ($\chi^2 (5) = 30.65, p < .001$). It turned out that advertisements within the Product Categories Dessert type foods (6.9%) and Beverages (6.8%) contained more 'Made in...' statements than the categories Baking products (0%), Garnish (1.9%), and Snacks (0.8%). Advertisements for Meal type products (4.8%) did not differ from other Product categories in the number of 'Made in...' statements used.

A Chi-square test between Product category and Quality and origin labels showed a significant relation ($\chi^2 (5) = 33.99, p < .001$). Advertisements for Beverages (6.8%), Dessert type foods (5.9%), Baking products (4.5%), and Snacks (4.1%) contained more Quality and origin labels than advertisements for Meal type products (1%), and Garnish (0%).

A Chi-square test between Product category and COO embedded in the company name showed a significant relation ($\chi^2 (5) = 7.51, p < .001$). Advertisements for Baking products (16.7%) and Dessert type foods (13.7%) appeared to use this marker more frequently than advertisements for Meal type products (6.7%) and Snacks (1.6%). These categories did not seem to differ from Beverages (8.7%) and Garnish (10.4%).

A Chi-square test between Product category and Typical COO embedded in the company name showed a significant relation ($\chi^2 (5) = 28.82, p < .001$). Advertisements for Dessert type foods (36.3%), Beverages (31.5%), Garnish (27.4%), Meal type products (25%), and Baking products (22.7%) displayed this COO marker more frequently than advertisements in the category Snacks (10.7%).

A Chi-square test between Product category and Use of COO language showed a significant relation ($\chi^2 (5) = 22.29, p < .001$). Advertisements for Baking products (21.2%) and

Beverages (16.4%) contained more COO language than advertisements for Snacks (6.6%) and Meal type products (10.6%). The categories Dessert type foods (13.7%) and Garnish (11.3) did not differ from the other categories.

A Chi-square test between Product category and Use of famous and/or stereotypical people showed a significant relation ($\chi^2 (5) = 12.26, p = .031$). Advertisement for Beverages (10%), Dessert type foods (6.9%), Garnish (6.6%), Meal type products (5.8%), and Snacks (4.1%) used this marker more frequently than advertisements for Baking products (0%). However, an analysis of the crosstabs did not reveal significant differences between the Product categories for this marker. Therefore, this conclusion should be interpreted with caution.

A Chi-square test between Product category and Use of COO flags and symbols showed a significant relation ($\chi^2 (5) = 25.92, p < .001$). This marker appeared to be mostly used in advertisements for Garnish (12.3%), Meal type products (11.5%) and Baking products (10.6%). Advertisements for Snacks (4.1%) and Beverages (5.9%) used this marker less frequently. Advertisements for Dessert type foods (7.8%) did not differ from the other categories in the use of this marker.

A Chi-square test between Product category and Use of typical landscapes and famous buildings from the COO showed a significant relation ($\chi^2 (5) = 39.87, p < .001$). Advertisements for Beverages (16%), Garnish (15.1%), Dessert type foods (14.7%), Meal type products (9.6%) and Snacks (8.2%) contained relatively more images of COO landscapes and buildings than Baking products (1.5%).

A Chi-square test between Product category and COO embedded in the body copy showed a significant relation ($\chi^2 (5) = 39.43, p < .001$). Advertisements for Garnish (40.6%) and Baking products (31.8%) appeared to mention the COO in the advertisements more frequently than advertisements for Meal type products (16.3%) and Snacks (9.8%). Advertisements for Beverages (21.5%) and Dessert type foods did not differ from the other Product categories.

5.2.3. Relationship between Product categories and combinations of COO markers.

As was noted in the introduction, combinations of COO markers (Aichner, 2016) and consumer culture positioning indicators (Alden et al. 1999) are used in advertisements. The frequencies with which combinations of COO markers between Product categories occur was examined in

the present study. Table 6 shows the values of the relationship between combinations of COO markers and Product categories.

Table 6: The relationship between combination of COO markers and Product categories

Combination of COO markers	<i>Product categories</i>					
	Beverages	Baking products	Meal type foods	Garnish	Snacks	Dessert type foods
C1 (N = 20)	3	1	5	1	7	3
% in COO combination	15%	5%	25%	5%	35%	15%
% in product group	1.3%	1%	3.6%	1.5%	5.1%	2.4%
C2 (N = 15)	2	2	1	5	3	2
% in COO combination	13.3%	13.3%	6.7%	33.3%	20%	13.3%
% in product group	0.9%	1.9%	0.7%	7.6%	2.2%	1.6%
C3 (N = 9)	3	3	0	0	0	3
% in COO combination	33.3%	33.3%	0%	0%	0%	33.3%
% in product group	1.3%	2.9%	0%	0%	0%	2.4
C4 (N = 9)	3	3	0	0	0	3
% in COO combination	33.3%	33.3%	0%	0%	0%	33.3%
% in product group	1.3%	2.9%	0%	0%	0%	2.4
C5 (N = 8)	1	0	6	0	0	1
% in COO combination	12.5%	0%	75%	0%	0%	12.5%
% in product group	0.4%	0%	4.3%	0%	0%	0.8%
C6 (N = 8)	0	0	4	0	4	0
% in COO combination	0%	0%	50%	0%	50%	0%
% in product group	0%	0%	2.9%	0%	2.9%	0%
C7 (N = 7)	0	3	1	0	1	2
% in COO combination	0%	42.9%	14.3%	0%	14.3%	28.6%
% in product group	0%	2.9%	0.7%	0%	0.7%	1.6%
C8 (N = 5)	0	0	0	0	5	1
% in COO combination	0%	0%	0%	0%	83.3%	16.7%
% in product group	0%	0%	0%	0%	3.6%	0.8%

*Significant main effects between all combinations of COO markers and Product categories were revealed ($\chi^2(383) = 712.47, p < .001$).

Note:

- C1 - Typical COO in the company name*COO embedded in the advertisements
- C2 - Typical COO embedded in the company name*Use of COO language
- C3 - Typical COO embedded in the company name*Use of COO language*COO embedded in the advertisement
- C4 - COO embedded in the company name*Use of COO flags and symbols*COO embedded in the advertisements
- C5 - Use of typical landscapes and famous buildings from the COO*COO embedded in the advertisement
- C6 - Typical COO embedded in the company name*Use of famous and stereotypical people from the COO,*Use of typical landscapes and famous buildings from the COO*COO embedded in the advertisements
- C7 – Typical COO embedded in the company name*Use of famous and stereotypical people from the COO,*Use of typical landscapes and famous buildings from the COO*COO embedded in the advertisements
- C8 - COO embedded in the company name*Use of famous and stereotypical people from the COO*Use of landscapes and famous buildings from the COO*COO embedded in the advertisement

A chi-square test between all combinations of COO markers and Product categories revealed a significant main effect ($\chi^2 (385) = 712.47, p < .001$). Advertisements for different Product categories displayed different combinations of COO markers. The eight most frequently used combinations of two or more markers will be discussed in the order of frequent to less frequent. Table 7 (see Appendix D) displays the frequencies and percentages for all possible combinations.

Firstly, the two markers Typical COO in the company name and COO embedded in the advertisements were used together most frequently with 20 occurrences. This combination was mostly used in the category Snacks (35%), Meal type products (25%), Beverages (15%), and Dessert type foods (15%). This combination was observed only once in advertisements for Baking products (5%) and Garnish (5%).

Secondly, a combination of the two markers Typical COO embedded in the company name and Use of COO language was observed 15 times. Advertisements for Garnish (33.3%), Snacks (20%), Beverages (13.3%), Baking products (13.3%), and Dessert type foods (13.3%) showed this combination most frequently. This combination was observed once in advertisements for Meal type products (0.7%).

Thirdly, a combination of the three markers Typical COO embedded in the company name, Use of COO language, and COO embedded in the advertisement occurred nine times. This combination was only observed in advertisements for Beverages (33.3%), Baking products (33.3%), and Dessert type foods (33.3%) and never in advertisements for other Product categories. Another combination of three markers was also observed nine times. This combination involved the markers COO embedded in the company name, Use of COO flags and symbols, and COO embedded in the advertisements (fourth combination). This combination was only observed in the categories Snacks (83.3%) and Garnish (16.7%).

The fifth combination was observed eight times and consisted of the two markers Use of typical landscapes and famous buildings from the COO and COO embedded in the advertisement. The category Meal type products showed this combination more frequently (75%) than Beverages (12.5%) and Dessert type foods (12.5%). A combination of the four markers Typical COO embedded in the company name, Use of famous and stereotypical people from the COO, Use of typical landscapes and famous buildings from the COO, and COO embedded in the advertisements was also observed eight times (sixth combination). This combination was only observed for the categories Meal type products (50%) and Snacks (50%).

The seventh combination involved the markers COO embedded in the company name and COO embedded in the advertisement. This combination was used seven times and usually for Meal type products (42.6%) and Dessert type foods (28.6%). Advertisements for Meal type products (14.3%) and Snacks (14.4) also used this combination once. This combination was not observed in other Product categories.

The eighth combination comprised five different markers and was observed six times. This combination involved the markers COO embedded in the company name, Use of famous and stereotypical people from the COO, Use of landscapes and famous buildings from the COO, and COO embedded in the advertisement. This combination was solely observed for the categories Snacks (83.3%) and Dessert type foods (12.5%).

5.2.4. Differences between Product categories and combinations of COO markers.

In order to interpret the use of COO marker combinations for different Product categories in more detail, residual values that fell outside the boundaries of +3 and -3 were further specified (Field, 2009, p. 292). Residual values express the difference between an observed value of the

dependent variable and the predicted value (Field, 2009, p. 292). In other words, variables that have high residual values have more or less than expected COO markers. For example, if a relation between Beverages and the combination 'Made in...' statements with Quality and origin labels shows a high positive residual value, this means that advertisements for Beverages contained this combination more frequently than expected. Table 8 shows the strongest effects for the relationship between the six Product categories and (combinations of) COO markers. The product category Garnish appeared to show the strongest residual effects for a number of COO marker combinations followed by the categories Snacks and Dessert type foods. The longest combination of markers (seven) was observed in advertisements for Dessert type foods. The categories Beverages and Baking products never showed higher than expected combinations of COO markers.

Table 8: Product categories and expectancies of COO markers (in combinations) based on residual values.

Product category	Residual value	Expectancy
Beverages	-3	Less than expected 0 COO markers
Meal type products	3.2	More than expected marker 8 and 9
Meal type products	3.1	More than expected markers 1, 4, 5, 7, 9
Garnish	4.3	More than expected markers 5, 6
Garnish	3.9	More than expected markers 4, 5, 7
Garnish	4.5	More than expected markers 6, 7, 8, 9
Garnish	4.6	More than expected markers 1, 3, 7, 8, 9
Garnish	4.5	More than expected markers 1, 3, 4, 5, 9
Garnish	3.1	More than expected markers 1, 4, 5, 6, 7, 9
Snacks	4.1	More than expected marker 5
Snacks	4.1	More than expected markers 5, 9
Snacks	3	More than expected markers 7, 9
Snacks	3.5	More than expected markers 5, 8
Snacks	3.5	More than expected markers 3, 7, 9
Snacks	3.6	More than expected markers 3, 4, 5, 7, 9
Dessert type foods	4	More than expected no COO markers
Dessert type foods	4.1	More than expected markers 7, 8
Dessert type foods	4	More than expected markers 3, 4, 5, 9
Dessert type foods	3.6	More than expected markers 2, 4, 6, 8

Dessert type foods	3.4	More than expected markers 2, 4, 5, 8
Dessert type foods	3.4	More than expected markers 1, 4, 5, 6, 9
Dessert type foods	3.9	More than expected markers 1, 2, 4, 5, 9
Dessert type foods	4	More than expected markers 1, 3, 4, 5, 6, 7, 8

Note:

Marker 1 = 'Made in...' statements

Marker 2 = Quality and origin labels

Marker 3 = COO embedded in the company name

Marker 4 = Typical COO words embedded in the company name

Marker 5 = Use of the COO language

Marker 6 = Use of famous or stereotypical people from the COO

Marker 7 = Use of typical landscapes or famous buildings from the COO

Marker 8 = Use of COO flags and symbols

Marker 9 = COO embedded in the body copy

5.3.1. COB and Stereotypical origin

The aim of the third research question (To what extent does the use of COO markers in advertisements depend on the COO of the brand?) was to clarify whether COB had an influence on the use of COO markers. In the present study COO is interpreted in two ways, namely: COB and the stereotypical origin of products in the advertisements. The following paragraphs will contribute to answering the third research question: The frequency of COB, the frequency of stereotypical origin, the relationship between COB and individual COO markers, The relationship between Stereotypical origin and COO markers, the relationship between combinations of COO markers and COB, the relationship between combinations of COO markers and Stereotypical origin, and the relation between Stereotypical origin and foreign languages. The researchers were interested in how frequently the stereotypical origin of products was different from the COB of products because this could clarify how often consumers are confronted with advertisements for products that have a different COB than might be expected based on the stereotypical origin of the product. Firstly, Table 9 shows the frequencies of COB in numbers and percentages. Secondly, Table 10 is a representation of Stereotypical origins that were observed. Some brands in the advertisements had corresponding COBs and Stereotypical origins (e.g. the advertisement of Belgium beer brand Affligem), while others suggested a different origin than the COB (e.g. Albert Heijn advertisement for Greek style yogurt).

5.3.2. Frequencies of COB

The Netherlands was found to be the COB in 333 out of all 795 advertisements. This means that nearly half of all the advertisements were from brands that originated in the Netherlands. The U.S.A. was the second most represented country with about 10% of the brands. Other countries that were observed relatively frequently were the U.K. (9%), Germany (9%), Switzerland (7%), and France (6%). The sample turned out to contain only one advertisement each from New Zealand, Finland, Portugal, Turkey, Mexico, and Scotland.

Table 9: The origin of brands in the advertisements in numbers and percentages ($N = 795$)

COB	Examples of brands	Frequency	Percentage
Netherlands	Conimex, De Ruijter, Nutrilon	333	43%
U.S.A.	Coca-Cola, Ben & Jerry's	77	9%
U.K.	HP Sauce, Colman's Mustard	72	9%
Germany	Haribo, Dr Oetker	68	9%
Switzerland	Nescafé, Ricola	56	7%
France	Danone, Evian	46	6%
Italy	Grand I'talia, Filippo Berio	39	5%
Belgium	Côte d'Or, Leffe	25	3%
Spain	Argal, Casillero del Diablo	16	2%
Sweden	Semper, Wasa	12	2%
Chile	Marques, Undurraga	10	1%
South Africa	Appletizer, Stormhoek	7	1%
Japan	Yakult, Saitaku	4	1%
Australia	Jacob's Creek, Camden Park	4	1%
Austria	Red Bull, Handl	3	0%
Argentina	Bodega Norton, Tilla	3	0%
Denmark	Arla, Rice dream	3	0%
Thailand	Blue elephant	3	0%
China	Amoy, Lee Kum Kee	2	0%
Greece	Fage	2	0%
Indonesia	Kokki Diawa	2	0%
Ireland	Jelly bean	2	0%
Mexico	Corona Extra	1	0%
New Zealand	Flaxbourne	1	0%
Portugal	Lancers	1	0%
Scotland	Malibu light	1	0%
Turkey	Yildriz	1	0%
Finland	Hartwall	1	0%
Total		795	100%

5.3.3. Frequencies of Stereotypical origin

As can be seen in Table 10, a number of 412 advertisements contained products that could not be stereotypically associated with a specific nationality. This means more than half of the advertisements from *Allerhande* could not be assigned to a Stereotypical origin. The Netherlands appeared to be the Stereotypical origin of products 43 times (5%) (e.g. Dutch croquettes, liquorice), Italy 37 times (5%) (e.g. pizza, olive oil), and the U.S.A. 32 times (4%) (e.g. cornflakes, gum). The countries Norway (e.g. knekkebrød) Russia (e.g. wodka), Sweden (e.g. crackers), and Turkey (garlic sauce) were found to act as Stereotypical origin for products only once. The differences between COB and Stereotypical origin were tested by means of a Chi-square goodness of fit test ($\chi^2(1) = 32.76, p < .001$), which showed a significant effect. The results revealed that only 35% of the advertisements had a COB that corresponded with the Stereotypical origin of the products.

Table 10: The Stereotypical origin of brands in the advertisements in numbers and percentages ($N = 795$)

Stereotypical origin	Examples of Stereotypical products	Frequency	Percentage
No stereotypical origin		412	52%
France	Wine	79	10%
Netherlands	Cheese	43	5%
Italy	Pizza	37	5%
U.S.A.	Gum	32	4%
Belgium	Beer	25	3%
Brazil	Coffee	25	3%
Greece	Yogurt	21	2%
Indonesia	Peanut sauce	19	2%
Ecuador	Chocolate	18	2%
Japan	Tuna	18	2%
Germany	Sausage	17	2%
U.K.	Rum	17	2%
Costa Rica	Bananas	6	1%
Morocco	Humus	6	1%
Switzerland	Hüttenkäse	4	1%
China	Wok dishes	3	0%
Thailand	Phat Thai	3	0%
Austria	Energy drink	2	0%
India	Curry	2	0%
Spain	Aioli	2	0%
Norway	Knakkebrød	1	0%
Russia	Wodka	1	0%

Sweden	Crackers	1	0%
Turkey	Garlic Sauce	1	0%
Total		795	100%

5.3.4. Relationship between COO markers, COB, and Stereotypical origin.

In this section, first Chi-square tests were reported for the relationship between each individual COO marker with COB and Stereotypical origin (in pairs). The percentages represent the proportion of the total number of times a marker occurred in advertisements. Residual values of more than +3 or -3 were consulted to interpret relatively high or low numbers of COO markers per COB and Stereotypical origin. Table 11 and 12 show the highest residual values per COB and Stereotypical origin.

A Chi-square test between COB and 'Made in...' statements revealed a significant relation ($\chi^2 (31) = 148.56, p < .001$). This means that 'Made in...' statements were used differently depending on the COB. Advertisements from Italy (20%), Spain (16.7%), France (16.7%), and Chile (10%) contained relatively more 'Made in...' statements than other COBs. Advertisements from the Netherlands (6.7%) showed less 'Made in...' statements than expected. A Chi-square test between Stereotypical origin and 'Made in...' statements revealed a significant relation ($\chi^2 (26) = 88.33, p < .001$). This means that 'Made in...' statements were used differently depending on the Stereotypical origin that was associated with the products in the advertisements. Advertisements for products that were stereotypically French contained more 'Made in...' statements than expected (53.3%).

A Chi-square test between COB and Quality and origin labels revealed a significant relation ($\chi^2 (31) = 87.26, p < .001$). Advertisements from Spain (15.6%), Chile (12.5%), and France (12.5%) contained more Quality and origin labels than expected. A Chi-square test between Stereotypical origin and Quality and origin labels revealed a significant relation ($\chi^2 (26) = 71.02, p < .001$). Higher than expected frequencies of 'Made in...' statements (46.9%) were found for the Stereotypical origin France.

A Chi-square test between COB and COO embedded in the company name revealed a significant relation ($\chi^2 (31) = 98.60, p < .001$). Only advertisements from Japan showed this marker more frequently (2.9%) than expected. There was no difference between the other COBs in the use of this marker. A Chi-square test between Stereotypical origin and COO embedded in the company name revealed a significant relation ($\chi^2 (26) = 71.02, p < .001$).

Advertisements that referred to a French (18.8%), Dutch (18.8%), Italian (11.6%), or German (10.1%) origin used this marker more than expected.

A Chi-square test between COB and Typical COO embedded in the company name revealed a significant relation ($\chi^2 (31) = 233.63, p < .001$). Advertisements from Italy (14.1%), France (11.6%), Spain (8%), Chile (5%), and the U.S.A. (4%), used this marker more than expected. Advertisements from the Netherlands (25.1%) used this marker less frequently than expected. A Chi-square test between Stereotypical origin and Typical COO embedded in the company name revealed a significant relation ($\chi^2 (26) = 189.08, p < .001$). The stereotypical origins France (26.2%), Italy (11.1%), Indonesia (4.5%), Costa Rica (2.5%), and India (1%) were represented more frequently than expected.

A Chi-square test between COB and Use of COO language revealed a significant relation ($\chi^2 (31) = 218.12, p < .001$). Advertisements from Italy (22.4%), Spain (13.3%), and France (10.2%) used more COO language than expected. A Chi-square test between Stereotypical origin and Use of COO language revealed a significant relation ($\chi^2 (26) = 117.34, p < .001$). The stereotypical origins France (28.6%) and Italy (14.3%) used more COO language than other expected.

A Chi-square test between COB and Use of famous or stereotypical people from the COO revealed a significant relation ($\chi^2 (31) = 123.76, p < .001$). Advertisements from Italy (21.4%), Chile (7.1%), and Sweden (7.1%) used this marker more frequently than expected. A Chi-square test between Stereotypical origin and Use of famous or stereotypical people revealed a significant relation ($\chi^2 (26) = 57.19, p < .001$). The stereotypical origins France (23.2%), Italy (10.37%), Greece (7.1%), and Indonesia (7.1%) used this COO marker more than expected.

A Chi-square test between COB and Use of COO flags and symbols revealed a significant relation ($\chi^2 (31) = 119.50, p < .001$). Advertisements from Thailand (4.9%), Argentina (3.3%), and Japan (3.3%) displayed more COO flags and symbols than expected. A Chi-square test between Stereotypical origin and Use of flags and symbols revealed a significant relation ($\chi^2 (26) = 103.57, p < .001$). Advertisements that referred to a French (18%), German (6.6%), or Indonesian (6.6%) COO used more Flags and symbols than expected.

A Chi-square test between COB and Use of typical landscapes and famous buildings from the COO revealed a significant relation ($\chi^2 (31) = 106.65, p < .001$). Advertisements from

Spain (5.7%), Chile (4.5%), and Sweden (4.5%) used this marker more than expected. A Chi-square test between Stereotypical origin and Use of typical landscapes and famous buildings from the COO revealed a significant relation ($\chi^2 (26) = 116.29, p < .001$). When advertisements showed a typically French (22.7%), Greek (9.1%), Indonesian (9.1%), Brazilian (8%), or Ecuadorian (5.7%) product, this marker was used more than expected.

A Chi-square test between COB and COO embedded in the advertisement revealed a significant relation ($\chi^2 (31) = 121.71, p < .001$). Advertisements from Italy (13.1%), Spain (5.4%), Sweden (3.6%), Chile (3%), and Japan (1.8%) used this marker more than expected. A Chi-square test between Stereotypical origin and COO embedded in the advertisements revealed a significant relation ($\chi^2 (26) = 104.47, p < .001$). Advertisements for products that could typically be associated with France (19%), Indonesia (6.5%), and Germany (4.2%) used this marker more than expected.

Table 11: COBs of the products in the advertisements and expectancies of COO markers based on high residual values.

COB	Residual value	Expectancy of COO markers
Spain	7.9	More than expected COO marker 5
Italy	7.8	More than expected COO marker 5
Spain	6	More than expected COO marker 4
Italy	5.8	More than expected COO marker 4
Thailand	5.8	More than expected COO marker 7
Chile	5.7	More than expected COO marker 2
Spain	5.7	More than expected COO marker 1
Italy	5.6	More than expected COO marker 6
Spain	5.4	More than expected COO marker 2
Thailand	5.4	More than expected COO marker 3
Ireland	5	More than expected COO marker 6
New Zealand	5	More than expected COO marker 1
Italy	4.8	More than expected COO marker 9
Chile	4.7	More than expected COO marker 4
Chile	3.9	More than expected COO marker 6
Ireland	3.8	More than expected COO marker 8
Argentina	3.7	More than expected COO marker 7
Japan	3.6	More than expected COO marker 5

China	3.5	More than expected COO marker 6
Indonesia	3.5	More than expected COO marker 5
France	3.4	More than expected COO marker 4
Sweden	3.4	More than expected COO marker 6
Portugal	3.3	More than expected COO marker 7
China	3.1	More than expected COO marker 3
Japan	3.1	More than expected COO marker 7
Mexico	3.1	More than expected COO marker 3
Scotland	3.1	More than expected COO marker 3
Spain	3.1	More than expected COO marker 9
Thailand	3	More than expected COO marker 9
Netherlands	-3.3	Less than expected COO marker 5
Netherlands	-3.6	Less than expected COO marker 4

Note:

Marker 1 = 'Made in...' statements

Marker 2 = Quality and origin labels

Marker 3 = COO embedded in the company name

Marker 4 = Typical COO words embedded in the company name

Marker 5 = Use of the COO language

Marker 6 = Use of famous or stereotypical people from the COO

Marker 7 = Use of typical landscapes or famous buildings from the COO

Marker 8 = Use of COO flags and symbols

Marker 9 = COO embedded in the body copy

Table 11 shows that the strongest residual effects were found for Spain (7.9) and Italy (7.8). These results suggest that advertisements with Spain and Italy as COB had a relatively high proportion of the marker Use of COO language. Only advertisements from the Netherlands showed negative residual values. This means that advertisements from the Netherlands had a relatively low proportion of the markers 'Made in...' statements, Typical COO embedded in the company name, and Use of COO language. Table 12 shows that the strongest residual values were observed when France and Thailand were the stereotypical origin of products in the advertisement. The tables show the effect strength per COB/ stereotypical origin and each individual COO marker. Therefore, certain COBs/ stereotypical origins are reported multiple times.

Table 12: Stereotypical origins of the products in the advertisements and expectancies of COO markers based on high residual values.

Stereotypical origin	Residual value	Expectancy of COO markers
France	7.5	More than expected marker 1
France	7.5	More than expected marker 4
France	6.6	More than expected marker 2
France	5.9	More than expected marker 5
Thailand	5.8	More than expected marker 7
Thailand	5.4	More than expected marker 3
Germany	4.5	More than expected marker 3
Italy	4.4	More than expected marker 5
Italy	4.2	More than expected marker 4
China	3.7	More than expected marker 7
Indonesia	3.7	More than expected marker 5
Netherlands	3.5	More than expected marker 6
France	3.2	More than expected marker 6
Switzerland	3.1	More than expected marker 7

5.3.5. Combinations of COO markers per COB

The present study did not only examine the relationship between COB and individual COO markers but also the relationship between combinations of COO markers and COB. A Chi-square test between COB and combinations of COO markers revealed a significant main effect ($\chi^2(2002) = 3925.93, p < .001$). Residual values of more than +3 or less than -3 were identified as strong effects. A Table with all the relationships between 29 COBs and 78 combinations of COO markers was so large that it could not be added to this document. Therefore, the highest residual values between COB and combinations of COO markers will be discussed here in more detail.

For the COB Chile, a combination of the four markers Typical COO words embedded in the company name, Typical COO words embedded in the company name, Use of famous or stereotypical people from the COO, and Use of COO flags and symbols was observed four times. Chile appeared to be the only COB that used this combination. Furthermore, a combination of the three markers 'Made in...' statements, Typical COO words embedded in the company name, and COO embedded in the body copy occurred three times in advertisements from Chile. Again, Chile was the only COB to use this combination.

For COB France, a combination between the three markers Quality and origin labels, COO imbedded in the company name, and Typical COO words embedded in the company name occurred two times. France appeared to be the only COB to use this combination.

For the COB Germany a combination between the two markers Typical COO words embedded in the company name and Use of the COO language was observed five times. This means that a third of the times this combination occurred Germany was the COB. This is 60% of the total frequency of this combination. In addition, a combination between the two markers Typical COO words embedded in the company name and COO embedded in the body copy was observed for Germany three times. This means that Germany was the COB of the brand for nearly half of the advertisements in which this combination occurred.

For the COB Italy a combination between the three markers Typical COO words embedded in the company name, Use of the COO language, and COO embedded in the body copy was observed four times. This combination was only found for advertisements with an Italian COB.

5.3.6. Combinations of COO markers per Stereotypical origin

Previously, the relationship between stereotypical origin and the use of COO markers was assessed. To learn more about the relationship between Stereotypical origin and combinations of COO markers, a Chi-square test between Stereotypical origin and combinations of COO markers showed a significant main effect ($\chi^2 (2387) = 6757.85, p < .001$). Residual values of more than +3 or less than -3 were identified as strong effects. A Table with all the relationships between 24 Stereotypical origins and 78 combinations of COO markers was so large that it could not be added to this document. Therefore, the highest residual values between Stereotypical origin and combinations of COO markers will be discussed in more detail.

When Italy was the Stereotypical origin of products, a combination between the markers Typical COO words embedded in the company name, Use of COO flags and symbols, and COO embedded in the body copy was observed three times. This is 60% of the total frequency of this combination.

When Greece or Indonesia was the stereotypical origin for a product, a combination between markers Typical COO words embedded in the company name, Use of famous or stereotypical people from the COO, Use of COO flags and symbols, and COO embedded in the body copy was observed four times

5.3.7. Relationship between Stereotypical origin and foreign language

The present study also examined the relationship between the Stereotypical origin of products and the use of foreign languages to answer the third research question. It was expected that products with a clear Stereotypical origin would be more frequently advertised with a language that could be associated with the Stereotypical origin of the advertised product (Hornikx et al., 2013). This expectation turned out to be right. Different Chi-square tests have clarified the relationship between the use of languages that could be related to Stereotypical origin and other languages in advertisements for products that have a clear Stereotypical origin. Table 13 shows the results of a Chi-square test for the relationship between foreign languages and Stereotypical origin.

Table 13: Chi square test results between foreign languages and Stereotypical origins

Stereotypical origin	Total count	% within stereotypical origin	χ^2	p
English	480	60.4%	51.22	.002
French	98	12.3%	113.17	.000
Spanish	26	3.3%	91.90	.000
Italian	43	5.4%	127.88	.000
Other languages	13	1.6%	127.72	.000

A Chi-square test between Stereotypical origin and English showed a significant relation ($\chi^2 (26) = 51.22, p = .002$). The native language of the U.K. and U.S.A. is English. Compared to other Stereotypical origins, the U.K. and the U.S.A. have significantly higher proportions. The U.K. was the Stereotypical origin for products in 17 advertisements (e.g. tea, baked beans). English was found to occur in 15 (88%) out of 17 advertisements. Similar results were found for the U.S.A., which was the Stereotypical origin in 32 product advertisements (e.g. cola, tomato ketchup, gum, cornflakes), of which 30 contained English (94%). This means that stereotypical products from the U.K. and the U.S.A. almost always were advertised with their native language.

A Chi-square test between Stereotypical origin and French showed a significant relation ($\chi^2 (26) = 113.17, p < .001$). France turned out to be the Stereotypical origin for products most frequently (e.g. croissants, wine, French cheeses). Of the 79 advertisements with France as Stereotypical origin, 30 advertisements contained French words (38%) (e.g. the

brand name *bonne maman confiture*) This means that less than half of the advertisements contained the French language.

A Chi-square test between Stereotypical origin and German did not show a significant relation ($\chi^2 (26) = 19.99, p = .792$). The results showed that 17 advertisements had a German Stereotypical origin (e.g. sausage, German beer). It turned out that only two of these advertisements (11.8%) contained German words. This means that German language is almost never used in advertisements for typical German products.

A Chi-square test between Stereotypical origin and Spanish language showed a significant relation ($\chi^2 (26) = 91.90, p < .001$). Only two advertisements contained products that typically originate in Spain (e.g. aioli). One of these advertisements (50%) contained Spanish language.

A Chi-square test between Stereotypical origin and Italian showed a significant relation ($\chi^2 (26) = 127.88, p < .001$). A number of 37 advertisements contained products that could stereotypically be associated with Italy (pasta, Italian coffee). A number of 16 advertisements contained Italian (e.g. the text *maestro pastaio* on Grand 'Italia products). This means that slightly less than half (43%) of the advertisements with Italy as Stereotypical origin, contained Italian language.

A Chi-square test between Stereotypical origin and Other Languages showed a significant relation ($\chi^2 (26) = 127.72, p < .001$). Two advertisements showed typical Indian products (e.g. curry). A variety of Indian language was found in none of these advertisements. Products in 19 advertisements could be associated with Indonesia. The Indonesian language (Bahasa Indonesia) was found in 5 (26%) of these advertisements (e.g. *pisang, babi, goreng*). Japan was the Stereotypical origin for 18 advertisements, and three of those (17%) contained Japanese (e.g. the name of the founder of yogurt drink Yakult *Shirota* became the word for the beverage in Japan). Finally, Sweden turned out to be the Stereotypical origin just once, but no Swedish was found in the advertisement.

5.4.1. Foreign language

The aim of the fourth research question (To what extent are foreign languages used with each other and in combination with other COO markers?) was to examine the frequency of foreign languages and the relationship between foreign languages among themselves and in combination with other COO markers. First, the frequency of foreign languages will be

examined followed by a discussion of how languages are related among each other and with other COO markers. Table 13 shows how many advertisements contained one or multiple foreign languages. Table 14 presents frequencies of all possible combinations to clarify how frequently different types of foreign languages were combined.

Table 13: Foreign languages used in the advertisements in numbers and percentages ($N = 795$)

Number of foreign languages used in advertisement	<i>n</i>	%
No foreign language in the advertisements	236	30
1 foreign language in the advertisements	457	58
2 foreign languages in the advertisements	84	11
3 foreign languages in the advertisements	16	2
4 foreign languages in the advertisements	2	0

Table 14: Combinations of foreign languages used in the advertisement in numbers and percentages ($N = 795$)

	Used language(s)	<i>n</i>	%
0 to 1 foreign languages	No foreign language	236	27.7%
	English	383	48.2%
	(e.g. <i>explore the world of Twinings</i> is a slogan that is used for the Dutch market)		
	French	39	4.9%
	(e.g. the phrase <i>Fermentation Naturelle</i> on a bottle of Kikkoman soy sauce)		
	Italian	23	2.9%
	(e.g. <i>lazange tradizionale</i> on a bottle of Bertolli pasta sauce)		
	German	9	1.1%
	(e.g. the phrase <i>mit knackig gerösteten, ganzen hassenüssen</i> in an advertisement for Ritter Sport)		
	Spanish	2	0.3%
	(e.g. the Quality and origin label of the wine brand Vinas Del Vero is <i>denominación de origen</i>)		
	Other languages (Japanese, Indian, Indonesian, Swedish)	1	0.1%

(e.g. the Swedish word *havregryn* in an advertisement from the gluten free brand Sampre)

Two foreign languages	English and French	36	4.5%
	English and Italian	20	2.5%
	English and Spanish	13	1.6%
	English and German	5	0.6%
	English and other languages (Japanese, Indian, Indonesian, Swedish)	5	0.6%
	French and Spanish	4	0.5%
	French and German	1	0.1%
Three or more foreign languages	English, French and Spanish	7	0.9%
	English, French and other languages (Japanese, Indian, Indonesian, Swedish)	5	0.6%
	English French and German	4	0.5%
	English, French, German and other languages (Japanese, Indian, Indonesian, Swedish)	2	0.3%

The analysis showed that 236 advertisements (27.2%) did not contain a foreign language. This means that about one third of the advertisements were completely in Dutch or did not use language. When advertisements contained just one foreign language, the most observed language was English (48.2%). Apart from English, French (4.9%) and Italian (2.9%) were most frequently observed individually, but to a much lesser extent. When two foreign languages were used in the advertisement, a combination between English and French was most frequently observed (4.5%) followed by English and Italian (2.5%). A combination between French and German was observed only once (0.1%). Combinations of three or more foreign languages appeared to consist most frequently of English, French, and Spanish (0.9%), and least frequently of English, French, German, and other languages (0.3%).

5.4.2. Relationship between foreign languages

In order to find out how frequently languages are used individually in advertisements (without other languages) or in combination with other languages, Chi-square tests were used to assess the relationship between languages. Table 15 shows the relationship between foreign languages.

Table 15: Chi square test results for the relationship between foreign languages

		Present with other language	Not present with other language (present individually)	χ^2	p
English *	Count	12	468		
Other	% Within English	2.5%	97.5%	4.357	.037
language	% within other	92.3%	59.8%		
French *	Count	7	91		
German	% within French	7.1%	92.9%	6.924	.009
	% within German	33.3%	11.8%		
French *	Count	11	87		
Spanish	% within French	11.2%	88.8%	19.579	.000
	% within Spanish	42.3%	11.3%		
French *	Count	0	98		
Italian	% within French	0%	0%	5.243	.022
	% within Italian	0%	13%		
French *	Count	7	91		
Other	% within French	7.1%	92.9%	17.356	.000
language	% within other language	53.8%	11.6%		
German *	Count	2	19		
Other	% within German	9.5%	90.5%	4.068	.044
language	% within other language	15.4%	2.4%		

A Chi-square test between the English language and the category Other languages revealed a significant relation ($\chi^2 (1) = 4.357, p = .037$). English was used in combination with the Other languages more than expected. As a matter of fact, English was present in combination with the category Other languages 12 times (92.3% of each time Other languages occurred), while the expected count was 7.8%. On the other hand, English was present without other languages 468 times (97.5%), which is less than the expected count of 472.2 times. The Phi coefficient of

the relation between English and Other language is .084 ($p = .018$) which indicates weak correlation between English and the category Other languages (Japanese, Indian, Indonesian, Swedish). Chi-square tests between English and French ($p = .303$), English and German ($p = .594$), English and Spanish ($p = .121$), and finally English and Italian ($p = .080$) did not reveal significant relations.

When it comes to French language, first it has to be mentioned that in this case the assumption for using the Chi-square test was violated. In fact, one cell (25%) had expected count less than five. In this case, to be able to keep these results and consider them valid, Fisher's exact test was used to determine how significant the results were. A Chi-square test between French and German language revealed a significant relation ($\chi^2 (1) = 6.924, p = .009$). The French language was present without German less than expected (in 91 cases, as opposed to expected count of 95.4 cases). The Phi coefficient which shows the strength of the relationship between French and German was .105, with $p = .003$. This indicates a weak correlation between French and German. A Chi-square test between French and Spanish also revealed a significant relation ($\chi^2 (1) = 19.579, p < .001$). The French language was used without Spanish less than expected – in 87 cases (or 88.8% of every time French was present). However, Spanish was present in 15 cases where French was not present in advertisements, which is around 57.7%. The Phi coefficient of correlation in this case was .168 with $p < .001$ which indicates weak correlation. A Chi-square test between French and Italian language revealed a significant relation ($\chi^2 (1) = 5.243, p = .022$). The French language was used without Italian more than expected – in 98 cases, as opposed to the expected count of 92.7 cases. However, Italian was present in 43 cases where French was not present in advertisements. The Phi coefficient of correlation is -.090 with $p = .11$, which indicates weak negative correlation. A Chi-square test between French and Other languages revealed a significant relation ($\chi^2 (1) = 17.356, p < .001$). The French language was used without Other language less than expected – in 91 cases, or 92.9%. On the other hand, Other languages were present in 6 cases where French was not present in advertisements, which is around 0.9%. The Phi coefficient of correlation is .163 with a significance level of $p < .001$ which shows weak relation between French and Other languages.

When the relationship between German with Spanish was tested, once again, the assumption for Chi-square which says that the number of cells that have expected count less than 5 have to be 0, was violated. In fact, 1 cell (25%) has expected count less than 5 and that

is why, when analyzing results, again Fisher's Exact Test statistic should be used. According to this test, no statistically significant relationship was observed ($p = .816$) between German and Spanish. The same was true for German and Italian ($p = .534$). The relation between German and the category Other languages had statistical significance. Here, the assumption of Chi-square is also violated, but the significance level is $p = .004$. The results show that German is present in the advertisements in 19 cases, while the expected count is 20.7 cases. Phi coefficient is significant and shows weak relation between German and Other languages ($P = .004$).

The relationship between Spanish and Italian was *not significant* ($p = .382$). Since the assumption of Chi-square was violated, Fisher's Exact test was used ($p = .391$). The relation between Spanish and Other language ($p = .504$), and Italian and Other language ($p = .385$) was *not significant*.

5.4.3. Relationship between foreign languages and COO markers

In order to find out whether foreign languages are used in combination with other COO markers, a Chi-square test was used to assess the relationship between Combinations of foreign languages and 'Made in...' statements. Table 16 shows the relationship between COO markers and foreign languages. This test showed a significant main effect ($\chi^2 (17) = 152.74$, $p < .001$). Based on residual values of +3 and -3 it could be concluded that 'Made in...' statements were used with Italian more than expected (20% of all 'Made in...' statements). Furthermore, 'Made in...' statements were used in combination with English and Spanish also more frequently than expected (20%).

Table 16: Relationship between COO markers and combination of languages

COO marker	Language	Count	% within the marker	% within language combination	χ^2	p
Marker 1	Italian	6	20%	26.1%	152.74	.000
	English*Spanish	6	20%	46.2%		
	French	6	20%	15.4%		
Marker 2	English	6	18.8%	1.6%	176.20	.000

	French * Spanish	4	12.5%	100%		
	English*French*Spanish	4	12.5%	57.1%		
	German	4	5.8%	44.4%		
Marker 3	English*Other languages	4	5.8%	80.0%	71.02	.000
	French	28	14.1%	71.8%		
Marker 4	Italian	15	7.5%	65.2%	178.68	.000
	German	8	4%	88.9%		
	French*Spanish	4	2%	100%		
	Italian	15	15.3%	65.2%		
	French	15	15.3%	38.5%		
Marker 5	German	7	7.1%	77.8%	349.94	.000
	Spanish	2	2%	100%		
	English * Italian	14	14.3%	70%		
	English * Spanish	7	7.1%	53.8%		
	English*French*Spanish	4	4.1%	57.1%		
	Italian	6	10.7%	26.1%		
	English * Italian	6	10.7%	30%		
Marker 6	French*Spanish	4	7.1%	100%	126.19	.000
	English*French*German*	2	3.6%	100%		
	Other					
Marker 7	English * Other	3	4.9%	60%	44.67	.000
	French * Spanish	4	4.5%	100%		
Marker 8	English*French*Spanish	4	4.5%	57.1%	62.44	.000
	Italian	17	10.1%	73.9%		
Marker9	English*Spanish	9	5.4%	69.2%	110.75	.000
	English*Other	5	3%	100%		

A Chi-square test between Combinations of foreign languages and Quality and origin labels revealed a significant relation ($\chi^2(17) = 176.20, p < .001$). Quality and origin labels were used in

combination with French and Spanish more than expected (12.5% of all Quality and origin labels). Quality and origin labels also occurred with English, French and Spanish more than expected (12.5%).

A Chi-square test between Combinations of foreign languages and COO embedded in the company name revealed a significant relation ($\chi^2(17) = 71.02, p < .001$). COO embedded in the company name was used with German more than expected (5.8%). Furthermore, COO embedded in the company name was also found frequently in combination with English and Other Languages (5.8%).

A Chi-square test between Combinations of foreign languages and Typical COO words embedded in the company name revealed a significant relation ($\chi^2(17) = 178.68, p < .001$). Typical COO words embedded in the company name was found in combination with the languages French (14.1%), Italian (7.5%), and German (4%) individually more than expected. In addition, the combination of French and Spanish appeared in advertisements with Typical COO words embedded in the company name more than expected (2%).

A Chi-square test between Combinations of foreign languages and Use of the COO language revealed a significant relation ($\chi^2(17) = 349.94, p < .001$). Use of the COO language was found in combination with Italian (15.3%), French (15.5%), German (7.1%), and Spanish (2%) more than expected. Also combinations of English with Italian (14.3%), English with Spanish (7.1%), French and Other languages (5.6%), and English, French and Spanish (4.1%) were observed more frequently than expected.

A Chi-square test between Combinations of foreign languages and Use of famous or stereotypical people from the COO revealed a significant relation ($\chi^2(17) = 126.19, p < .001$). Use of famous or stereotypical people from the COO was found with Italian (10.7%) and combinations of English and Italian (10.7%), French and Spanish (7.1%), and English, French, German, and Other languages (3.6%) more than expected.

A Chi-square test between Combinations of foreign languages and Use of typical landscapes or famous buildings from the COO revealed a significant relation ($\chi^2(17) = 44.67, p < .001$). Use of typical landscapes or famous buildings from the COO was found more frequently with combinations of English and Other languages than expected (4.9%).

A Chi-square test between Combinations of foreign languages and Use of COO flags and symbols revealed a significant relation ($\chi^2(17) = 62.44, p < .001$). Use of COO flags and

symbols appeared in advertisements with combinations of French and Spanish (4.5%), English, French, and Spanish (4.5%) more than expected.

A Chi-square test between Combinations of foreign languages and COO embedded in the body copy revealed a significant relation ($\chi^2(17) = 110.75, p < .001$). COO embedded in the body copy appeared more than expected in combination with Italian (10.1%), English and Spanish (5.4%), English and Other languages (3%).

5.5.1. Relationship between Foreign languages and position

The aim of the fifth research question (In which parts of the advertisements are foreign languages and other COO markers most commonly used?) was to clarify in which parts of the advertisements foreign languages and other COO markers are commonly used. Three relationships were examined to answering the fifth research question, namely: the relationship between Foreign language and parts of the advertisements, Relationship between COO markers and parts of the advertisements, Differences between foreign languages in parts of the advertisements. Table 17 displays the frequencies for all possible language and positioning combinations in the corpus. The most frequently used language (English) was found most often on the Product packaging (280 times) and in the body copy (254 times) of the advertisement. For the present study a distinction was made between ten different parts within advertisements. Table 18 shows the frequencies and percentages for these parts.

Table 17: Foreign languages and parts in the advertisements in numbers and percentages ($N = 795$)

Language per part of the advertisement	<i>n</i>	% of part
English in headline	155	21%
French in headline	9	1%
German in headline	6	1%
Spanish in headline	5	1%
Italian in headline	13	2%
English in body copy	254	39%
French in body copy	25	4%
German in body copy	5	1%
Spanish in body copy	13	2%

Italian in body copy	27	4%
Other languages in body copy	4	1%
English in slogan	54	22%
French in slogan	4	2%
Italian in slogan	3	1%
Spanish in slogan	1	0%
German in slogan	1	0%
English in pay-off	7	16%
English in standing details	73	27%
French in standing details	7	3%
Italian in standing details	5	2%
Spanish in standing details	4	1%
English in background	11	2%
French in background	4	1%
German in background	3	1%
Other languages in background	2	0%
English on product	2	0%
French on product	1	0%
English on product packaging	280	38%
French on product packaging	63	9%
Italian on product packaging	35	5%
German on product packaging	16	2%
Spanish on product packaging	15	2%
Other languages on product packaging	2	0%
English in product name	153	27%
French in product name	22	4%
Italian in product name	17	3%
German in product name	2	0%
English in brand name	97	13%
French in brand name	19	3%
Italian in brand name	9	1%
Spanish in brand name	6	1%
German in brand name	4	1%

Table 18: Parts of the advertisements in numbers and percentages ($N = 795$)

Parts of the advertisement	n	%
Brand name	747	94%
Headline	740	93.1%
Picture (Product packaging)	734	92.3%
Body copy	651	81.9%
Product name	572	71.9%
Picture (background)	488	61.4%
Picture (product)	403	50.7%
Standing details	271	34.1%
Slogan	250	31.4%
Pay-off	45	5.7%

5.5.2. Relationship between COO markers and parts of the advertisements

In order to interpret the relationship between COO markers (other than language) and parts of the advertisement, a selection was made of four COO markers. These markers were: 'Made in...' statements, Quality and origin labels, Use of famous or stereotypical people from the COO, and Use of COO flags and symbols. Unlike other markers (e.g. COO embedded in the company name and COO embedded in the body copy) it was unclear on what positions these markers are used and with what frequency. With regard to position, a distinction was made between three parts of the advertisement that could display these visual COO markers, namely: Backgrounds, Product packaging, and the product itself.

The total corpus contained 488 advertisements with a Background. When advertisements contained a Background, a 'Made in...' statement was found 23 times. This is 76.7% of all 'Made in...' statements. Chi-square tests did not reveal a significant relation between Background and 'Made in...' statements ($p = .080$). However, a significant relationship was found between Background and Quality and origin labels ($p = .047$). When advertisements had a Background, more than expected Quality and origin labels were observed (78.1%). Another significant effect ($p < .001$) was found between Background and Use of famous and/or stereotypical people from the COO, meaning that Backgrounds and Use of famous or stereotypical people from the COO was observed together more than expected (83.9%). The last significant effect ($p < .001$) was found between Background and Use of typical

landscapes and famous buildings from the COO. This marker was observed with Backgrounds 73 times (83%), which is more than expected.

No significant relations were found for the variables Products, Product packaging, and the COO markers except for the relationship between Product packaging and 'Made in...' statements. When advertisements showed Product packaging ($p < .001$) more than expected 'Made in..' statements were present (92.5%).

5.5.3. Differences between foreign languages in parts of the advertisements

To test whether there was an actual difference in the use of foreign languages in different parts of the advertisements, several paired proportion tests were conducted to clarify the relationship between the variables with high proportions of foreign language.

A Paired proportions test between Product packaging and Body copy revealed a significant effect for the use of English ($z = 2.2, p = < .014$). This means that Product packaging contained more English language than all other parts of advertisements. Body copies and headlines also differed significantly in the use of English ($z = 4.06, p < .001$). Headlines and Product names did not seem to differ in the proportion of English ($z = 2.10, p = .436$). Product names contained more English than Brand names ($z = 1.9, p < .012$). Brand names used English words more frequently than Standing details ($z = 2.9, p = < .022$). Standing details and slogans used similar frequencies of English ($z = 1.9, p = .243$). Slogans were found to contain more English than Backgrounds ($z = 4.1, p = < .028$) Backgrounds and Products did not display differences in the use of English language ($z = 2.1, p = < .317$).

A Paired proportions test between Product packaging and Body copy revealed a significant effect for the use of French ($z = 1.8, p = < .011$), meaning that Product packaging contained more French words than Body copies. No significant relations were found between the other parts for the use of French. Because the proportions of other languages were reasonably low, no further statistical tests were conducted.

6. Discussion & Conclusion

The purpose of the present study was to learn more about how frequently COO markers appear in advertisements and what factors their use depends on. A gap in the literature on the actual use of COO markers gave rise to this research topic. The main research question in the present study was: How are foreign languages and other COO markers used in Dutch magazine advertisements? In order to find an answer to this question and five sub-questions, 795 magazine advertisements from the Dutch magazine *Allerhande* were analyzed.

6.1.1. Frequency of COO markers

The first research question (How frequently used are various types of COO markers in Dutch magazine advertisements aimed at consumers?) was answered through a calculation of frequencies that revealed substantial differences in the occurrence of COO markers in advertisements. More than half of the advertisements contained one or more COO markers. The two markers that were observed most frequently were Typical COO words embedded in the company name (25%), and COO embedded in the advertisement (21%). It is striking that the latter marker turned out to be used so frequently since Aichner (2014) only discussed this marker very briefly and not as an individual strategy. Aichner (2014) provided a description of COO markers but did not further specify their occurrence in practice. Conflicting results with his study were found for one marker in particular. According to Aichner, 'Made in...' statements allow practitioners to communicate the origin of a product the easiest way. Therefore, he assumes that 'Made in...' statements are among the most widely used markers (p. 86). However, 'Made in...' statements were only observed in 4% of a whole calendar year of magazine advertisements. The study by Aichner (2014) was based on various types of media such as television commercials, radio commercials, magazine advertisements, and product packaging. The present study has shown that 'Made in...' statements do not frequently occur in magazine advertisements. The few 'Made in...' statements that were found were usually located on the product packaging. Therefore, future studies might examine the effectiveness of 'Made in...' statements on product packaging compared to other positions of advertisements.

In summary, based on the frequencies it looks like practitioners are convinced that the two COO markers Typical COO Words in the company name and COO embedded in the advertisement make advertisements more effective. These strategies are likely to be based

on intuition since empirical data on the effectiveness of COO markers is rather limited. To date, only the effects of the markers Use of foreign language versus 'Made in...' statements (Hornikx & van Meurs, 2017) and Typical landscapes and famous buildings from the COO versus Use of COO language (Raedts & Roozen, 2013) have been examined. It might be interesting for future studies to empirically examine the effectiveness of the markers Typical COO Words in the company name and COO embedded in the advertisement. The results of the present study might provide suggestions for practitioners in shaping advertisements with the most frequently used COO markers.

6.1.2. Word count and language

The present study examined the average amount of words per foreign language in order to answer the first research question. Previous studies (Sella, 1993; Piller, 2003) demonstrated how many advertisements in Germany (70%) and Greece (56.6%) contained foreign languages, but not the amount of foreign language that was used in advertisements. The present study revealed that the highest observed frequencies of words were English (9.62 words on average in advertisements containing English) followed by Spanish (7.06), French (7.27), Italian (6.05), German (6.03), and other languages (6). In 474 advertisements containing English, an average of 9.62 words was found. The present study confirms the findings of Piller (2003) that English is the most common foreign language in advertisements and has also shown that English occurs with the highest number of words in advertisements.

6.2.1. Relationship Product type and COO markers

The aim of the second research question (To what extent does the use of COO markers in advertisements depend on the product type?) was to clarify whether differences could be found between Product categories in the use of COO markers. Previous studies (Gerritsen, Nickerson, Van Hooft, Nederstigt, Starren, & Crijns, 2007) had found differences in the use of English between Product categories, but it was unclear whether the use of other COO markers depended on the advertised Product category. The present study showed that Product categories differ significantly in the use of COO markers. Overall, it can be concluded that COO markers were most frequently represented in advertisements for Dessert type foods, Beverages, and Baking products. This means that advertisements in these Product categories are regularly made more typical of a certain COO with the help of markers. Practitioners use

COO markers for advertisements in the categories Snacks and Meal type products to a much lesser extent. Since it does not become clear why the use of COO markers differs for Product categories, follow-up studies could conduct interviews with advertisers to find out why COO markers are used differently depending on the advertised product.

6.2.2. Relationship Product type and combinations of COO markers

As was pointed out in the introduction, COO markers and consumer culture positioning strategies are combined with each other when a reference to a (desired) COO or consumer culture needs to be made (Aichner, 2016; Alden et al. 1999). However, these studies do not indicate how frequently combinations of COO markers are used. The present study has examined how often combinations of COO markers occur. In total, 78 different combinations of two or more COO markers were found in 25.2% of the sample. In 57.1% of the sample no COO marker was observed. A single COO marker was used in 17.2% of the advertisements. On the basis of residual values, it could be determined that advertisers show a preference for combinations of the markers 'Made in statement...', COO embedded in the company name, Use of typical landscapes or famous buildings from the COO, Use of COO flags and symbols, and COO embedded in the body copy in advertisements for Garnish. Other frequently observed combinations of markers were found for Use of COO language and COO embedded in the body copy (for Snacks), and between Use of typical landscapes and famous buildings from the COO and Use of flags and symbols (for Dessert type foods). In particular the Product categories Dessert type foods, Snacks, and Garnish were found to use combinations up to seven different markers relatively frequently. The reason why advertisers choose certain combinations of COO markers, however, remains unclear. Perhaps future studies with interviews can provide more clarity.

6.3.1. Relationship of COB, COO markers, and combinations of COO markers

Based on previous studies, it was unclear whether the COB of products had an influence on the use of (combinations of) COO markers. Therefore, research question three was formulated (To what extent does the use of COO markers in advertisements depend on the COO of the brand?). Previous studies suggested that the origin of brands might affect the use of COO markers (Aichner, 2014; Bilkey & Nes, 1982). The present study has shown that the use of COO markers indeed depends on the origin of the brand. The analysis showed that products

originated from 28 different COBs. Higher than expected positive proportions were found for the relationship between 15 COBs and COO markers. Especially advertisements from Italian, Spanish, Chilean, and Thai brands used relatively many different COO markers in single advertisements. Therefore, it can be suggested that brands which originate in Italy, Spain, Chile, and Thailand try to take advantage of positive stereotypical association consumers might have with these countries more than other COBs. Perhaps the use of COO markers is more effective for countries such as these because they have more typical products and stereotypical images than other cultures such as Hungary or Poland.

Furthermore, it was striking that some combinations of COO markers were found to be exclusively used in advertisements from a limited number of COBs. Chile for instance was the only COB to display a combination of Quality and origin labels, Typical COO embedded in the company name, Use of famous and stereotypical people and Use of typical landscapes and famous buildings from the COO. This might be explained by the fact that Chile was frequently the COB for wine advertisements. Therefore, these COO markers might be more effective in advertisements for wine than other product types. Future studies might use interviews to find out why advertisers use more COO markers in advertisements with certain Product categories.

6.3.2. Relationship of Stereotypical origin, COO markers, and combinations of COO markers

To answer the third research question, the present study also examined the relationship between the Stereotypical origin of products and the use of (combinations of) COO markers. With regard to the Stereotypical origin of products, an objective was to clarify whether COO markers are more frequently used with the Stereotypical origin of products or the real COB. This allowed us to assess the claims made by Aichner (2016) about the extent to which consumers fall victim to misleading COO marketing. In the article *The Country of Origin lie*, Aichner (2016) illustrates how consumers are misled by COO strategies in their daily lives. However, how often consumers were being misled was unclear. The results of the present study indicate that Aichner (2016) might be right, since only 35% of the advertisements had a COB that corresponded with the stereotypical origin of the products. In other words, in a majority of cases the brand of a product was from another country than could be expected on the basis of the origin of the product.

It was noteworthy that a country like Germany frequently appeared to be the COB of brands but rarely the Stereotypical origin for products. On the other hand, countries such as

Ecuador (e.g. chocolate) and Greece (e.g. feta cheese) could often be associated with typical products but were never the actual COB for products. Therefore, it could be possible that a country such as Germany does not have a good reputation when it comes to certain food products, and therefore the COO is not clearly communicated. On the other hand, countries such as Greece and Ecuador are apparently seen as good stereotypical origins for food products (this is communicated), even if the product is not really from these countries. Future studies may conduct interviews with advertisers to clarify why sometimes a Stereotypical origin is communicated that is different from the true origin of the product. With regard to combinations of COO markers, only few significant effects could be found for the relationship between Stereotypical origins and combinations of COO markers. Residual values revealed that a rather large combination of markers was only observed (Typical COO words embedded in the company name, Use of famous or stereotypical people from the COO, Use of COO flags and symbols, COO embedded in the body copy) for Greece and Indonesia as stereotypical origin four times. Therefore, it can be concluded that combinations of markers are more influenced by COB than the Stereotypical origin of products. Interviews with practitioners might clarify their choices for certain combinations of COO markers in relation to different COBs and Stereotypical origins.

6.3.3. Relationship foreign languages and stereotypical origins

In general, it can be concluded that most products with a stereotypical origin are communicated in advertisements with a language that can be associated with that COO. In other words, the language used, often matches the stereotypical origin of the product. However, there are exceptions that will be discussed in this section. English was used almost every time when a product originated from a native English speaking country such as the U.K. (88.2%) and the U.S.A. (93.8%). However, less than half of the advertisements with typical French products contained French (38%), and barely any German was found in advertisements for German products (11.8). For Spanish (49.9%) and Italian (43.2%), slightly less than half of the advertisements contained Spanish or Italian. Other languages were only found in less than a quarter of the advertisement with products typically from Indonesia, India, Japan and Sweden.

Hornikx et al. (2013) found that language and product congruency led to higher perceptions of product quality, better attitude towards the product and higher purchase

intentions. However, the effects of product and language congruency appeared to depend on the language used. In the case of French for example, the congruence effect was found for perceived quality, attitude towards the product, and purchase intention. For German, the congruence effect was only found for purchase intention, and in the case of Spanish the congruence effect was found for attitude towards the product, and purchase intention. This might explain the observed differences between advertisements for products with different stereotypical origins in the use of foreign language. For example, practitioners might realize that using French in an advertisement for a stereotypical French product is more effective than using German for a typical German product. This is reflected in the present study because the amount of language that was used in advertisements varied for different languages even when the languages were used in combination with congruent products. Future experimental studies might try to explain why in some advertisements relatively more words in a foreign language (9.62 English words on average) are used than in others (6.33 German words on average). This may be because English is understood better by consumers than most other languages. However, this is still unclear. Therefore, interviews with advertisers could clarify why differences in amount of foreign language can be found.

6.4.1. Frequencies of Foreign languages

In order to answer the fourth research question (To what extent are foreign languages used with each other and in combination with other COO markers?), data needed to be collected on how many advertisements contained foreign languages. Subsequently, their relationship with each other and other COO markers was assessed. A calculation of frequencies revealed that multiple languages could be present in the same advertisement. 30% of the all the advertisements in the corpus consisted exclusively of Dutch language. This means that 70% of the advertisements displayed one or multiple foreign languages. Most of the advertisements contained only one foreign language, while there was also a small number of advertisements that used up to four different languages combined. Within the one foreign language group, English was by far the most frequently used language. Within the two foreign languages group, English and French was the most widely used combination. In advertisements with three or more foreign languages, English and French were always present, while Italian was never used in combinations of three or more languages.

The findings of the present study are in some aspects in accordance with previous studies. For instance, Piller (2001) found that 70% of her German corpus contained languages other than German. The present study found that 70.3% of all advertisements contained words from languages other than Dutch. The most observed foreign language was English (48.2%), followed by French (4.9%) and Italian (2.9%). In the study by Piller, French and Italian were also the second and third most observed languages. The finding that 70.3% of the sample contained foreign languages, indicates that the marker Use of COO language might be the most important COO marker. However, it should be noted that many advertisements contained English. The frequency of the COO marker Use of COO language was found to be rather low in the present study (12%) since this marker was only counted if English was used to associate a brand with a native English speaking country such as the U.K. or the U.S.A. For example, English was not considered a foreign language in an advertisement for Spanish wine, because in this case English was not used as a COO marker.

6.4.2. Relationship between foreign languages

In contrast to previous studies (Aichner, 2016; Alden et al. 1999), the present study has quantified combinations of foreign languages that occur in practice. In most cases a combination between English and French or English with another language was found. Like Alden et al. (1999) indicated, English is sometimes used to associate a product with a global consumer culture segment. Based on the present study can be concluded that in practice relatively little use is made of combinations of global and foreign culture positioning strategies through language. This finding is consistent with the suggestion by Alden et al., who indicated that combinations of consumer culture positioning strategies are probably not beneficial and even confusing for consumers. Future studies could test the effects of using combinations of GCCP (English) and FCCP (e.g. French) in advertising to examine whether combinations of consumer culture positioning really have a negative effect on consumers.

6.4.3. Relationship foreign languages and COO markers

The present study examined the extent to which foreign languages and other COO markers are used in combination with each other. Alden et al. (1999) suggested that languages are a strong informative cue for consumers to associate a brand with a certain consumer culture (global, foreign, local). However, it was unclear whether language cues are effective enough

for the successful positioning of a brand as being part of one of these consumer cultures. The present study examined the extent to which language cues are enhanced by COO markers in practice. Residual values indicated that COO markers were frequently present with higher than expected numbers of a variety of foreign languages. Therefore, it can be concluded that, in practice, (foreign) language in itself is considered insufficiently strong as a cue to position a brand as being global, foreign or local. Future studies could use interviews to find out if advertisers think foreign language on itself is a strong cue to position a brand as being part of a certain consumer culture. In addition, an experiment could be performed in which the effect of a foreign language in advertisements is compared with advertisement using a foreign language and another COO marker.

6.5. Relationship between foreign language and position

In order to answer research question five (In which parts of the advertisements are foreign languages and other COO markers most commonly used?), an assessment was made of the position of foreign languages and four COO markers in advertisements ('Made in...' statements, Quality and origin labels, Use of famous and/ or stereotypical people, Use of COO flags and symbols). English was the most frequently used language in all parts of advertisements. In general, Product packaging was the part where foreign languages were located most frequently. For Headlines and Body copies, Italian was the second most used language, although French was also regularly observed in the body copy. Slogans rarely contained a foreign language except for English. Piller (2001) suggested that English is frequently used in slogans and headlines and has a signaling function to attract attention. The present study supports these findings since English was the most frequently observed language in headlines and slogans. French and Italian occurred only a few times in slogans. The pay-off of the advertisements was used exclusively in English seven times. Apart from English, the languages French, Spanish and Italian also occurred in the standing details but this happened only sporadically.

As was indicated in the introduction, a distinction was made between Background, Product packaging, and the Product itself. In contrast to the Product packaging, it turned out that Backgrounds and the Product itself rarely contained (foreign) languages. This occurred only a few times with English, French, and German. With regard to Product packaging, it appeared that English (38% of all product packaging), French (9%) and Italian (5%) were the

most popular choices for advertisers. Finally, the advertisements seemed to display Brand names most often in the languages English (27%), (3%) French, and Italian (1%). Product names appeared to be also most frequently in English (27%), French (4%), and Italian (3%). The reason why differences between English and most other languages are so large for nearly all parts of advertisements does not become clear. Perhaps English does not only function as a COO marker or as a strategy to associate a product with a global consumer culture (Alden et al., 1999). The differences between English and other languages might also have a functional reason because English could be easier to understand by Dutch consumers than other foreign languages. Future studies could conduct Interviews with practitioner to clarify why the differences between English and other languages are so large in most parts of advertisements.

The position of other COO markers in the advertisements appeared to depend on a number of aspects. For instance, Quality and origin labels were found to be used more in advertisements that contained a background. In addition, when advertisements contained a background, more than expected images of famous or stereotypical people and typical landscapes/ famous buildings from the COO were present. Finally, it turned out that 'Made in...' statements almost always were observed on product packaging in advertisements. The reason why some COO markers are more often used in certain parts of advertisements can be clarified by conducting interviews with practitioners.

6.6.1. Contribution to the theory

The main contribution of the present study is that where previous studies have mainly focused on conceptualizing aspects from COO marketing (Aichner, 2014; Aichner 2016; Alden et al. 1999), the present study has examined how COO strategies are actually applied in practice. This has led to new insights about the actual relevance of supposedly important COO markers, such as 'Made in...' statements in print medium advertisements. Firstly, the COO markers identified by Aichner (2014) were used to assess their occurrence in magazine advertisements. It turned out that 'Made in...' statements were used in print medium advertisements less than expected. The markers Typical COO words embedded in the company name and COO embedded in the body copy were found to occur most often. Secondly, Gerritsen et al. (2007) had found that the use of English in advertisements depended on the product type. The present study, demonstrated that also the use of other foreign languages and COO markers was influenced by the type of product that was advertised. For example, the marker Use of

foreign languages was observed for the food category Snacks seven times more often than for the category Beverages. It also became clear that some languages are combined more frequently than others. For example, English and French were used together rather frequently, while French and Italian were never observed in advertisements at the same time. In addition, large combinations (up to 7 COO markers) were found exclusively for certain product categories. Based on previous studies (Aichner, 2014; Bilkey & Nes, 1982) it was not clear whether the use of COO markers depended on the origin of the brand. The present study showed that countries such as Italy, Spain, Chile, and Thailand used relatively more COO markers than the other 25 countries where brands originated from. Finally, the results showed that foreign languages are regularly supplemented by other COO markers. This suggests that foreign language itself, as a cue, is not considered strong enough to associate a brand with a certain COO. However, because of the high presence of foreign languages in advertisements compared to other COO markers, The Use of COO language might be the most effective marker.

6.6.2. Limitations of the present study

The present study has some limitations. Firstly, the results only apply to food products in print medium advertising. Therefore, no assumptions can be made about COO markers in advertisements from other product categories. Food products are usually thought of as the product category that is often consumed in a way that is typical of the local culture (Alden et al., 1999). Therefore, it could be interesting to examine the use of COO markers in advertisements for other products. In addition, advertisements in *Allerhande* are likely to come from organizations that have above average spending capital. As a result, their advertisements are probably made by professional marketing agencies. Advertisements from organizations with less capital might use fewer COO markers since these advertisements are less likely to be designed by professionals. Future studies could focus on advertisements from smaller organizations with lesser budget to find out whether this is true.

6.6.3. Ethical considerations

The findings for the mismatch between COB and Stereotypical origin show that consumers are quite regularly deceived by misleading advertisements that give the impression that products come from somewhere other than their actual origin. Watchdog organizations like the

Advertising Standards Authority (ASA, 2017) should supervise advertisements aimed at consumers and take appropriate measures to prevent consumers from being deceived.

6.6.4. Practical implications

Some organizations might not have enough funds to outsource the design of their advertisements. In particular these organization can learn from the best practices that were revealed in the present study. The COO markers Typical COO words embedded in the company name and COO embedded in the body copy were observed most frequently. Advertisement for Dessert type food products show the most and longest (up to seven markers) combinations of COO markers together with the categories Snacks and Garnish. Combinations of COO markers are rarely observed for Meal type products, Beverages, and Baking products. With regard to foreign languages, English and French were used most often. Most language combinations were found for English with French and English with Italian. Future studies must take up the challenge to show if the most popular choices for advertisers with regard to languages and other COO markers, are also really the most effective choices. Organizations in the food industry will now have an overview of which COO makers are typically used for certain food product types. This could help them shape effective advertisements.

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Appendix A: Description COO markers

- 1) 'Made in...' statements (implicit)
 - 2) Quality and origin labels (implicit)
 - 3) COO imbedded in the company name (implicit)
 - 4) Typical COO words embedded in the company name (implicit)
 - 5) Use of the COO language (implicit)
 - 6) Use of famous or stereotypical people from the COO (implicit)
 - 7) Use of typical landscapes or famous buildings from the COO (implicit)
 - 8) Use of COO flags (explicit) and symbols (implicit)
 - 9) Use of COO in the body advertisements (implicit)
-
1. As an example of the first marker, some boxes of chocolate contain the statement: 'Made in Belgium' (product packaging of Albert Heijns' private Label brand Delicata says *van Belgische chocolade*). In this case, the phrase 'Made in...' is a COO marker because it indicates that the chocolate originates in Belgium (which is famous for its chocolate).
 2. This marker is a protected designation of origin (PDO), a form of quality of origin label. PDO is regulated by the European Union and states that the place where something is produced or has grown affects the final product (Oulton, 2010). For example, makers of Parmesan cheese can only use the name 'Parmigiano-Reggiano' if the cheese is produced in certain Italian provinces (<http://parmigianoreggiano.com/>). The 'Made in...' statement discussed above is also bound by regulations. In general, manufacturers can only use 'Made in...' statements when the essential manufacturing processes were carried out in that country (Aichner, 2014).
 3. Some companies choose to use the name of their country, region or city in their brand name (e.g. the brand Zaanlander cheese).
 4. This marker uses typical COO-related words in the brand name. These words may not necessarily have a meaning (e.g. the coffee brand Tassimo). An Italian sounding brand name might evoke associations with Italy due to its spelling and pronunciation.
 5. This marker is about the use of language from the COO. Use of foreign languages in advertisements is referred to as foreign language display (FLD) (Eastman and Stein

(1993, p. 189). FLD can be defined as ‘the appropriation of words or phrases from another language, used within one’s own social group’. Advertisers use FLD to signal the true origin of products or to give the impression that products originate from a country that is associated with a particular language (Aichner, 2014). FLD may be used in different positions of advertisements in all types of media. Take for example the advertisement for Berberana (wine) which says: *Fundada en 1877*.

6. Famous (e.g. Golf player Tiger Woods wearing Nike shoes) or stereotypical people (e.g. German looking man in Lederhosen drinking beer) are also often used to evoke COO associations. When consumers see people in advertisements, they evaluate the group to which those people belong. This grouping process is based on the characteristics of people, such as behaviour, appearance and clothing. Stereotypes are then attributed to those people based on their group membership (Aichner, 2014). Appendix E shows an example of this marker for Swiss Chocolate (Alamy, 2017). The people in this advertisement wear typical clothes that consumers might relate to Switzerland.
7. This marker is also used in the advertisement of Swiss chocolate (see Appendix E). The marketer shows the landscape to remind consumers of the Swiss Alps. Besides landscapes, famous buildings or native animals can be used for this COO strategy, which associates a particular environment with the product.
8. This marker entails the use of flags and symbols from the COO (e.g. the brand Amsterdam Croquettes uses the weapon of Amsterdam in their advertisements. Since national flags are likely to be well recognised by consumers, they are widely used as a visual cue when products need to emphasise their COO (Dinnie, 2008). According to Aichner (2014), this strategy is commonly used on product packaging for the so-called typical COO food products like popcorn from the U.S. and bratwurst from Germany (Aichner, 2014).
9. This marker applies when the advertisements make a direct reference to a COO in the body of the text (e.g. Aperol Spritz commercial with the phrase: *Verwelkom je gasten met de Spritz Apèrol, een échte aperitivo Italiano*).

Appendix B: Coding scheme

Coder ID

0.) Coder 1

1.) Coder 2

A. Brand name

1.) _____

B. COO of the brand (COB)

1.) _____

C. Stereotypical origin of the product

1.) _____

Food product types

D. Which food product type is referred to in the advertisement?

- 1) Baby Foods, including instant formula
- 2) Baking Mixes
- 3) Baking Needs
- 4) Beverage - Mixes, Dairy
- 5) Beverage - Mixes, Non-dairy
- 6) Beverages - Carbonated Soft Drinks
- 7) Beverages - Coffee- and Tea
- 8) Beverages - Juices/drinks – Frozen
- 9) Beverages – Juices/drinks – Refrigerated
- 10) Beverages – Juices/drinks – shelf stable
- 11) Beverages – Meal-type Products
- 12) Beverages – Milk
- 13) Beverages – Other Dairy Drinks & Substitutes
- 14) Beverages – Water
- 15) Breeding Products, Flours & Meals
- 16) Breads & Baked Goods – Fresh & Shelf-stable
- 17) Breads & Baked Goods - Frozen

- 18) Breads & Baked Goods - Refrigerated
- 19) Breakfast Foods
- 20) Butters, Margarines, & Spreads
- 21) Candies-Chocolate
- 22) Candies & Gums-Assorted
- 23) Cereals-Cold
- 24) Cereals-Hot
- 25) Cheese
- 26) Condiments
- 27) Cookies
- 28) Crackers
- 29) Dairy Miscellaneous
- 30) Dips and Spreads
- 31) Eggs & Egg Substitutes
- 32) Fruit-Dried, Fresh, & Frozen
- 33) Fruit-Shelf-stable
- 34) Fruit & Nut Butters & Spreads
- 35) Ice Creams, Sherbets, & Ices
- 36) Meals and Side Dishes - Frozen
- 37) Meals and Side Dishes - refrigerated
- 38) Meals and Side Dishes
- 39) Meat/poultry & Substitutes
- 40) Nuts & Seeds
- 41) Pasta
- 42) Pickles, Relishes, & Olives
- 43) Puddings, Gelatins, Toppings, & Fillings
- 44) Salad Dressing & Toppings
- 45) Salt, Seasonings, & Spices
- 46) Sauce, Gravy, & Seasoning Mixes
- 47) Sauces & Gravies
- 48) Seafood
- 49) Shortenings & Oils
- 50) Snacks – Granola Bars & Trail Mixes
- 51) Snacks – Popcorn, Pretzels, & Chips
- 52) Soups
- 53) Sugars & Sugar Substitutes
- 54) Syrups & Molasses
- 55) Vegetables – Frozen
- 56) Vegetables – Shelf stable
- 57) Vegetables & Grains - Dried
- 58) Wine

59) Beer

Non-food product types

E. Which non-food product type is referred to in the advertisement?

- 1) Personal nondurables
- 2) Household durables
- 3) Lower technology consumer durables
- 4) Higher-technology durables
- 5) Consumer services
- 6) Business goods
- 7) Business services
- 8) Others

Postions of the advertisement

F. Which positions are present in the advertisement?

- 1) Headline
- 2) Body copy
- 3) Slogan
- 4) Pay-off
- 5) Standing details
- 6) Picture (background)
- 7) Picture (product)
- 8) Picture (packaging)

G. Which COO marker(s) are present in the advertisements?

- 1) 'Made in...' statements
- 2) Quality and origin labels
- 3) COO embedded in the company name
- 4) Typical COO embedded in the company name
- 5) Use of the COO language
- 6) Use of famous or stereotypical people from the COO
- 7) Use of COO flags and symbols
- 8) Use of typical landscapes and famous buildings from the COO
- 9) COO embedded in the body copy

H. Which languages are used in the advertisement?

- 1) English
- 2) French
- 3) German
- 4) Spanish
- 5) Italian
- 6) Others

I. Indicate in which position of the advertisements foreign languages occurred.

- 1) English headline
- 2) French headline
- 3) German headline
- 4) Spanish headline
- 5) Italian headline
- 6) Other languages headline
- 7) English body copy
- 8) French body copy
- 9) German body copy
- 10) Spanish body copy
- 11) Italian body copy
- 12) Others body copy
- 13) English slogan
- 14) French slogan
- 15) German slogan
- 16) Spanish slogan
- 17) Italian slogan
- 18) Others slogan
- 19) English pay-off
- 20) French pay-off
- 21) German pay-off
- 22) Spanish pay-off
- 23) Italian pay-off
- 24) Others pay-off
- 25) English standing details
- 26) French standing details
- 27) German standing details
- 28) Spanish standing details
- 29) Italian standing details
- 30) Others standing details
- 31) English picture (background)

- 32) French picture (background)
- 33) German picture (background)
- 34) Spanish picture (background)
- 35) Italian picture (background)
- 36) Others picture (background)
- 37) English picture (product)
- 38) French picture (product)
- 39) German picture (product)
- 40) Spanish picture (product)
- 41) Italian picture (product)
- 42) Overigpicture (product)
- 43) English picture (packaging)
- 44) French picture (packaging)
- 45) German picture (packaging)
- 46) Spaanspicture (packaging)
- 47) Italiaanspicture (packaging)
- 48) Others picture (packaging)
- 49) English product name
- 50) French product name
- 51) German product name
- 52) Spanish product name
- 53) Italian product name
- 54) Others product name

J. Indicate the number of words in the advertisement

1.) ____

K. Indicate the numbers of words in each foreign language

1) English ____

2) French ____

3) German ____

4) Spanish ____

5) Italian ____

6) Others ____

Appendix C: Food and Drug administration (PDA) product categories

- 1) Baby Foods, including instant formula
- 2) Baking Mixes
- 3) Baking Needs
- 4) Beverage - Mixes, Dairy
- 5) Beverage - Mixes, Non-dairy
- 6) Beverages - Carbonated Soft Drinks
- 7) Beverages - Coffee- and Tea
- 8) Beverages - Juices/drinks – Frozen
- 9) Beverages – Juices/drinks – Refrigerated
- 10) Beverages – Juices/drinks – shelf stable
- 11) Beverages – Meal-type Products
- 12) Beverages – Milk
- 13) Beverages – Other Dairy Drinks & Substitutes
- 14) Beverages – Water
- 15) Breeding Products, Flours & Meals
- 16) Breads & Baked Goods – Fresh & Shelf-stable
- 17) Breads & Baked Goods - Frozen
- 18) Breads & Baked Goods - Refrigerated
- 19) Breakfast Foods
- 20) Butters, Margarines, & Spreads
- 21) Candies-Chocolate
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- 23) Cereals-Cold
- 24) Cereals-Hot
- 25) Cheese
- 26) Condiments
- 27) Cookies
- 28) Crackers
- 29) Dairy Miscellaneous
- 30) Dips and Spreads
- 31) Eggs & Egg Substitutes
- 32) Fruit-Dried, Fresh, & Frozen
- 33) Fruit-Shelf-stable
- 34) Fruit & Nut Butters & Spreads
- 35) Ice Creams, Sherbets, & Ices
- 36) Meals and Side Dishes - Frozen
- 37) Meals and Side Dishes - refrigerated

- 38) Meals and Side Dishes
- 39) Meat/poultry & Substitutes
- 40) Nuts & Seeds
- 41) Pasta
- 42) Pickles, Relishes, & Olives
- 43) Puddings, Gelatins, Toppings, & Fillings
- 44) Salad Dressing & Toppings
- 45) Salt, Seasonings, & Spices
- 46) Sauce, Gravy, & Seasoning Mixes
- 47) Sauces & Gravies
- 48) Seafood
- 49) Shortenings & Oils
- 50) Snacks – Granola Bars & Trail Mixes
- 51) Snacks – Popcorn, Pretzels, & Chips
- 52) Soups
- 53) Sugars & Sugar Substitutes
- 54) Syrups & Molasses
- 55) Vegetables – Frozen
- 56) Vegetables – Shelf stable
- 57) Vegetables & Grains - Dried
- 58) Wine
- 59) Beer

Appendix D: Table 7

The table below shows all the relationships between individual COO markers and combinations of COO markers specified per Product category. The numbers in the left column represent the nine markers (0 = not present, 1 = present). So for example the string of numbers '000000011' indicates a combination between COO markers Use of COO flags and symbols and COO embedded in the body copy. The six product codes represent the Product categories 1.) Beverages 2.) Baking products 3.) Meal type products 4.) Garnish 5.) Snacks 6.) and Dessert type foods.

Table 6: Cross tabulation for (combinations of) COO markers and Product categories

		Product Category					
Combination		1	2	3	4	5	6
000000000	Count	167	62	75	33	72	45
	% within COO comb.	36.8%	13.7%	16.5%	7.3%	15.9%	9.9%
	% within Product code	73.6%	60.2%	54.0%	50.0%	52.6%	36.6%
	Standardized Residual	3.3	.4	-.5	-.8	-.7	-3.0
000000001	Count	4	3	3	3	7	6
	% within COO combi.	15.4%	11.5%	11.5%	11.5%	26.9%	23.1%
	% within Product code	1.8%	2.9%	2.2%	4.5%	5.1%	4.9%
	Standardized Residual	-1.3	-.2	-.7	.6	1.2	1.0
000000010	Count	7	2	2	0	1	4
	% within COO combi.	43.8%	12.5%	12.5%	0.0%	6.3%	25.0%
	% within Product code	3.1%	1.9%	1.4%	0.0%	0.7%	3.3%
	Standardized Residual	1.1	-.1	-.5	-1.2	-1.1	1.0
000000011	Count	1	0	6	0	0	1
	% within COO combi.	12.5%	0.0%	75.0%	0.0%	0.0%	12.5%
	% within Product code	0.4%	0.0%	4.3%	0.0%	0.0%	0.8%
	Standardized Residual	-.8	-1.0	3.9	-.8	-1.2	-.2
000000100	Count	1	0	0	1	1	2
	% within COO combi.	20.0%	0.0%	0.0%	20.0%	20.0%	40.0%
	% within Product code	0.4%	0.0%	0.0%	1.5%	0.7%	1.6%
	Standardized Residual	-.4	-.8	-.9	.9	.1	1.4
000000101	Count	0	0	0	0	4	1
	% within COO combi.	0.0%	0.0%	0.0%	0.0%	80.0%	20.0%
	% within Product code	0.0%	0.0%	0.0%	0.0%	2.9%	0.8%
	Standardized Residual	-1.2	-.8	-.9	-.6	3.4	.3
000000111	Count	0	0	0	0	0	2
	% within COO combi.	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	% within Product code	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%
	Standardized Residual	-.8	-.5	-.6	-.4	-.6	3.0
000001000	Count	3	0	0	1	1	0
	% within COO combi.	60.0%	0.0%	0.0%	20.0%	20.0%	0.0%

	% within Product code	1.3%	0.0%	0.0%	1.5%	0.7%	0.0%
	Standardized Residual	1.3	-.8	-.9	.9	.1	-.9
000001010	Count	0	0	2	0	0	2
	% within COO combi.	0.0%	0.0%	50.0%	0.0%	0.0%	50.0%
	% within Product code	0.0%	0.0%	1.4%	0.0%	0.0%	1.6%
	Standardized Residual	-1.1	-.7	1.6	-.6	-.8	1.8
000001011	Count	2	0	0	0	0	0
	% within COO combi.	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	% within Product code	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%
	Standardized Residual	1.9	-.5	-.6	-.4	-.6	-.6
000001100	Count	0	0	0	0	0	1
	% within COO combi.	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	% within Product code	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%
	Standardized Residual	-.5	-.4	-.4	-.3	-.4	2.1
000001111	Count	0	0	0	2	0	0
	% within COO combi.	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
	% within Product code	0.0%	0.0%	0.0%	3.0%	0.0%	0.0%
	Standardized Residual	-.8	-.5	-.6	4.5	-.6	-.6
000010000	Count	0	0	1	0	6	0
	% within COO combi.	0.0%	0.0%	14.3%	0.0%	85.7%	0.0%
	% within Product code	0.0%	0.0%	0.7%	0.0%	4.4%	0.0%
	Standardized Residual	-1.4	-1.0	-.2	-.8	4.4	-1.0
000010001	Count	0	0	0	0	3	0
	% within COO combi.	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%
	% within Product code	0.0%	0.0%	0.0%	0.0%	2.2%	0.0%
	Standardized Residual	-.9	-.6	-.7	-.5	3.5	-.7
000010010	Count	0	0	0	0	1	0
	% within COO combi.	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%
	% within Product code	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%
	Standardized Residual	-.5	-.4	-.4	-.3	2.0	-.4
000011000	Count	1	0	0	0	0	0
	% within COO combi.	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	% within Product code	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%
	Standardized Residual	1.3	-.4	-.4	-.3	-.4	-.4
000011001	Count	0	0	0	0	1	0
	% within COO combi.	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%
	% within Product code	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%
	Standardized Residual	-.5	-.4	-.4	-.3	2.0	-.4
000100000	Count	17	14	13	9	4	8
	% within COO combi.	26.2%	21.5%	20.0%	13.8%	6.2%	12.3%
	% within Product code	7.5%	13.6%	9.4%	13.6%	2.9%	6.5%
	Standardized Residual	-.4	1.9	.5	1.6	-2.2	-.6
000100001	Count	3	1	5	1	7	3
	% within COO combi.	15.0%	5.0%	25.0%	5.0%	35.0%	15.0%
	% within Product code	1.3%	1.0%	3.6%	1.5%	5.1%	2.4%
	Standardized Residual	-1.1	-1.0	.8	-.5	1.9	-.1
000100010	Count	0	0	1	0	0	0
	% within COO combi.	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
	% within Product code	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%
	Standardized Residual	-.5	-.4	2.0	-.3	-.4	-.4

000100011	Count	0	0	1	0	3	1
	% within COO combi.	0.0%	0.0%	20.0%	0.0%	60.0%	20.0%
	% within Product code	0.0%	0.0%	0.7%	0.0%	2.2%	0.8%
	Standardized Residual	-1.2	-.8	.1	-.6	2.3	.3
000100100	Count	0	1	1	2	0	0
	% within COO combi.	0.0%	25.0%	25.0%	50.0%	0.0%	0.0%
	% within Product code	0.0%	1.0%	0.7%	3.0%	0.0%	0.0%
	Standardized Residual	-1.1	.7	.4	2.9	-.8	-.8
000100111	Count	0	0	1	0	0	0
	% within COO combi.	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
	% within Product code	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%
	Standardized Residual	-.5	-.4	2.0	-.3	-.4	-.4
000101011	Count	0	0	4	0	4	0
	% within COO combi.	0.0%	0.0%	50.0%	0.0%	50.0%	0.0%
	% within Product code	0.0%	0.0%	2.9%	0.0%	2.9%	0.0%
	Standardized Residual	-1.5	-1.0	2.2	-.8	2.2	-1.1
000101101	Count	1	0	1	0	0	0
	% within COO combi.	50.0%	0.0%	50.0%	0.0%	0.0%	0.0%
	% within Product code	0.4%	0.0%	0.7%	0.0%	0.0%	0.0%
	Standardized Residual	.6	-.5	1.1	-.4	-.6	-.6
000110000	Count	2	2	1	5	3	2
	% within COO combi.	13.3%	13.3%	6.7%	33.3%	20.0%	13.3%
	% within Product code	0.9%	1.9%	0.7%	7.6%	2.2%	1.6%
	Standardized Residual	-1.1	.0	-1.0	3.4	.3	-.2
000110001	Count	3	3	0	0	0	3
	% within COO combi.	33.3%	33.3%	0.0%	0.0%	0.0%	33.3%
	% within Product code	1.3%	2.9%	0.0%	0.0%	0.0%	2.4%
	Standardized Residual	.3	1.7	-1.3	-.9	-1.2	1.4
000110010	Count	0	1	0	0	0	1
	% within COO combi.	0.0%	50.0%	0.0%	0.0%	0.0%	50.0%
	% within Product code	0.0%	1.0%	0.0%	0.0%	0.0%	0.8%
	Standardized Residual	-.8	1.5	-.6	-.4	-.6	1.2
000110011	Count	0	0	1	0	0	0
	% within COO combi.	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
	% within Product code	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%
	Standardized Residual	-.5	-.4	2.0	-.3	-.4	-.4
000110100	Count	0	0	0	1	0	0
	% within COO combi.	0.0%	0.0%	0.0%	100.0	0.0%	0.0%
	% within Productcode	0.0%	0.0%	0.0%	1.5%	0.0%	0.0%
	Standardized Residual	-.5	-.4	-.4	3.2	-.4	-.4
000110101	Count	0	1	0	0	0	0
	% within COO combi.	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
	% within Product code	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%
	Standardized Residual	-.5	2.4	-.4	-.3	-.4	-.4
000111000	Count	2	0	0	0	0	3
	% within COO combi.	40.0%	0.0%	0.0%	0.0%	0.0%	60.0%
	% within Product code	0.9%	0.0%	0.0%	0.0%	0.0%	2.4%
	Standardized Residual	.5	-.8	-.9	-.6	-.9	2.5
000111001	Count	0	2	1	0	0	0
	% within COO combi.	0.0%	66.7%	33.3%	0.0%	0.0%	0.0%

	% within Product code	0.0%	1.9%	0.7%	0.0%	0.0%	0.0%
	Standardized Residual	-.9	2.6	.7	-.5	-.7	-.7
000111010	Count	2	0	0	0	0	0
	% within COO combi.	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	% within Product code	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%
	Standardized Residual	1.9	-.5	-.6	-.4	-.6	-.6
000111011	Count	0	0	0	0	0	1
	% within COO combi.	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	% within Product code	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%
	Standardized Residual	-.5	-.4	-.4	-.3	-.4	2.1
001000000	Count	2	2	3	0	0	4
	% within COO combi.	18.2%	18.2%	27.3%	0.0%	0.0%	36.4%
	% within Product code	0.9%	1.9%	2.2%	0.0%	0.0%	3.3%
	Standardized Residual	-.6	.5	.8	-1.0	-1.4	1.8
001000001	Count	0	3	1	0	1	2
	% within COO combi.	0.0%	42.9%	14.3%	0.0%	14.3%	28.6%
	% within Product code	0.0%	2.9%	0.7%	0.0%	0.7%	1.6%
	Standardized Residual	-1.4	2.2	-.2	-.8	-.2	.9
001000011	Count	0	0	2	0	0	0
	% within COO combi.	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
	% within Product code	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%
	Standardized Residual	-.8	-.5	2.8	-.4	-.6	-.6
001000100	Count	0	1	0	0	2	0
	% within COO combi.	0.0%	33.3%	0.0%	0.0%	66.7%	0.0%
	% within Product code	0.0%	1.0%	0.0%	0.0%	1.5%	0.0%
	Standardized Residual	-.9	1.0	-.7	-.5	2.1	-.7
001000101	Count	0	0	0	3	6	0
	% within COO combi.	0.0%	0.0%	0.0%	33.3%	66.7%	0.0%
	% within Product code	0.0%	0.0%	0.0%	4.5%	4.4%	0.0%
	Standardized Residual	-1.6	-1.1	-1.3	2.6	3.6	-1.2
001001001	Count	0	0	1	0	0	0
	% within COO combi.	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
	% within Product code	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%
	Standardized Residual	-.5	-.4	2.0	-.3	-.4	-.4
001001011	Count	0	0	1	0	0	0
	% within COO combi.	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
	% within Product code	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%
	Standardized Residual	-.5	-.4	2.0	-.3	-.4	-.4
001001101	Count	2	0	0	0	0	0
	% within COO combi.	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	% within Product code	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%
	Standardized Residual	1.9	-.5	-.6	-.4	-.6	-.6
001010001	Count	0	0	0	0	0	1
	% within COO combi.	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	% within Product code	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%
	Standardized Residual	-.5	-.4	-.4	-.3	-.4	2.1
001010010	Count	0	0	2	0	0	0
	% within COO combi.	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
	% within Product code	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%
	Standardized Residual	-.8	-.5	2.8	-.4	-.6	-.6

001100011	Count	0	1	0	0	0	0
	% within COO combi.	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
	% within Product code	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%
	Standardized Residual	-.5	2.4	-.4	-.3	-.4	-.4
001110001	Count	0	0	0	0	0	2
	% within COO combi.	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	% within Product code	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%
	Standardized Residual	-.8	-.5	-.6	-.4	-.6	3.0
001110101	Count	0	0	0	0	5	1
	% within COO combi.	0.0%	0.0%	0.0%	0.0%	83.3%	16.7%
	% within Product code	0.0%	0.0%	0.0%	0.0%	3.6%	0.8%
	Standardized Residual	-1.3	-.9	-1.0	-.7	3.9	.1
001110111	Count	2	0	0	1	0	0
	% within COO combi.	66.7%	0.0%	0.0%	33.3%	0.0%	0.0%
	% within Product code	0.9%	0.0%	0.0%	1.5%	0.0%	0.0%
	Standardized Residual	1.2	-.6	-.7	1.5	-.7	-.7
001111011	Count	0	0	0	0	0	1
	% within COO combi.	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	% within Product code	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%
	Standardized Residual	-.5	-.4	-.4	-.3	-.4	2.1
010000000	Count	0	0	1	0	3	1
	% within COO combi.	0.0%	0.0%	20.0%	0.0%	60.0%	20.0%
	% within Product code	0.0%	0.0%	0.7%	0.0%	2.2%	0.8%
	Standardized Residual	-1.2	-.8	.1	-.6	2.3	.3
010000010	Count	0	0	2	0	0	1
	% within COO combi.	0.0%	0.0%	66.7%	0.0%	0.0%	33.3%
	% within Product code.	0.0%	0.0%	1.4%	0.0%	0.0%	0.8%
	Standardized Residual	-.9	-.6	2.0	-.5	-.7	.8
010001110	Count	0	1	0	0	0	0
	% within COO combi.	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
	% within Product code	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%
	Standardized Residual	-.5	2.4	-.4	-.3	-.4	-.4
010100000	Count	0	1	0	0	0	0
	% within COO combi.	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
	% within Product code	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%
	Standardized Residual	-.5	2.4	-.4	-.3	-.4	-.4
010101010	Count	0	0	0	0	0	4
	% within COO combi.	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	% within Product code	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%
	Standardized Residual	-1.1	-.7	-.8	-.6	-.8	4.3
010110001	Count	0	1	0	0	0	2
	% within COO combi.	0.0%	33.3%	0.0%	0.0%	0.0%	66.7%
	% within Product code	0.0%	1.0%	0.0%	0.0%	0.0%	1.6%
	Standardized Residual	-.9	1.0	-.7	-.5	-.7	2.3
010110010	Count	0	0	0	0	0	4
	% within COO combi.	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	% within Product code	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%
	Standardized Residual	-1.1	-.7	-.8	-.6	-.8	4.3
011010101	Count	1	0	0	0	0	0
	% within COO combi.	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%

	% within Product code	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%
	Standardized Residual	1.3	-.4	-.4	-.3	-.4	-.4
011100000	Count	2	0	0	0	0	0
	% within COO combi.	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	% within Product code	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%
	Standardized Residual	1.9	-.5	-.6	-.4	-.6	-.6
100100001	Count	0	0	0	0	0	3
	% within COO combi.	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	% within Product code	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%
	Standardized Residual	-.9	-.6	-.7	-.5	-.7	3.7
100100011	Count	0	0	0	0	0	1
	% within COO combi.	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	% within Product code	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%
	Standardized Residual	-.5	-.4	-.4	-.3	-.4	2.1
100110000	Count	0	0	0	0	0	1
	% within COO combi.	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	% within Product code	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%
	Standardized Residual	-.5	-.4	-.4	-.3	-.4	2.1
100110001	Count	0	0	1	0	1	0
	% within COO combi.	0.0%	0.0%	50.0%	0.0%	50.0%	0.0%
	% within Product code	0.0%	0.0%	0.7%	0.0%	0.7%	0.0%
	Standardized Residual	-.8	-.5	1.1	-.4	1.1	-.6
100110101	Count	0	0	3	0	0	0
	% within COO combi.	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
	% within Product code	0.0%	0.0%	2.2%	0.0%	0.0%	0.0%
	Standardized Residual	-.9	-.6	3.4	-.5	-.7	-.7
100111001	Count	0	0	0	0	0	2
	% within COO combi.	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	% within Product code	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%
	Standardized Residual	-.8	-.5	-.6	-.4	-.6	3.0
100111101	Count	0	0	0	1	0	0
	% within COO combi.	0.0%	0.0%	0.0%	100.0	0.0%	0.0%
	% within Product code	0.0%	0.0%	0.0%	1.5%	0.0%	0.0%
	Standardized Residual	-.5	-.4	-.4	3.2	-.4	-.4
101000111	Count	0	0	0	1	0	0
	% within COO combi.	0.0%	0.0%	0.0%	100.0	0.0%	0.0%
	% within Product code	0.0%	0.0%	0.0%	1.5%	0.0%	0.0%
	Standardized Residual	-.5	-.4	-.4	3.2	-.4	-.4
101100011	Count	0	0	0	0	0	1
	% within COO combi.	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	% within Product code	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%
	Standardized Residual	-.5	-.4	-.4	-.3	-.4	2.1
101110001	Count	0	0	0	2	0	0
	% within COO combi.	0.0%	0.0%	0.0%	100.0	0.0%	0.0%
	% within Product code	0.0%	0.0%	0.0%	3.0%	0.0%	0.0%
	Standardized Residual	-.8	-.5	-.6	4.5	-.6	-.6
101111001	Count	2	0	0	0	0	0
	% within COO combi.	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	% within Product code	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%
	Standardized Residual	1.9	-.5	-.6	-.4	-.6	-.6

101111101	Count	0	0	0	0	1	0
	% within COO combi.	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%
	% within Product code	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%
	Standardized Residual	-.5	-.4	-.4	-.3	2.0	-.4
101111111	Count	0	0	0	0	0	2
	% within COO combi.	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	% within Productcode	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%
	Standardized Residual	-.8	-.5	-.6	-.4	-.6	3.0
110000011	Count	0	0	0	0	0	1
	% within COO combi.	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	% within Productcode	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%
	Standardized Residual	-.5	-.4	-.4	-.3	-.4	2.1
110110001	Count	0	0	0	0	0	2
	% within COO combi.	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	% within Product code	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%
	Standardized Residual	-.8	-.5	-.6	-.4	-.6	3.0
111010101	Count	0	0	1	0	0	0
	% within COO combi.	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
	% within Product code	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%
	Standardized Residual	-.5	-.4	2.0	-.3	-.4	-.4
111010111	Count	0	1	0	0	0	0
	% within COO combi.	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
	% within Product code	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%
	Standardized Residual	-.5	2.4	-.4	-.3	-.4	-.4
111101010	Count	0	0	0	0	0	1
	% within COO combi.	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	% within Product code	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%
	Standardized Residual	-.5	-.4	-.4	-.3	-.4	2.1
111110111	Count	0	0	2	0	0	0
	% within COO combi.	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
	% within Product code	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%
	Standardized Residual	-.8	-.5	2.8	-.4	-.6	-.6
Total	Count	227	108	139	137	123	795
	% within COO combi.	28.6%	13.0%	17.5%	17.2%	15.5%	100%
	% within Product code	100% ^a	100%	100%	100%	100%	100%



(Alamy, 2017).