THE FRACTAL NATURE OF THE COUNTRY OF ORIGIN EFFECT - EXPLORING 50 YEARS OF COO RESEARCH

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Abstract

Purpose—the aim of the paper is to identify the main research avenues in the past 50 years of country of origin research and to reveal the fractal nature of the country of origin effect. Design/methodology/approach—systematic research of the relevant studies regarding country of origin; critical literature review; identifying fractal patterns of the country of origin effect. Findings—COO effect is a complex structure, highly sensitive to initial condition, similar to fractals; the COO effect is self-repeated, showing irregularity in every detail and impossible to be described by regular shapes or theories; the COO dimension is fractional due to the fractal nature of the COO effect. Practical implications—the practitioners find the COO effect for a specific product of a specific country in specific conditions is of high interest. Originality/value—the fractal nature of the COO effect might explain some of the contradictory findings in the past studies.

Keywords: Country of origin research, fractals

Summary

Fractal is a term introduced in 1975 by the mathematician Benoît Mandelbrot to describe the geometry of mountains, clouds and roughness generally speaking. Mandelbrot did not give a clear definition of fractal, just used a lot of examples and analogies. By fractals we understand a natural or geometrical object that is self-repeated, similar at any scale, showing irregularity in every detail, with a non-integer dimension and impossible to be described by regular shapes.\(^{80}\)

Like fractals, COO is not easy to define, not after 50 years of research. At the very beginning, it means the country where a product was originated from, but not anymore, because a product can be designed in a country, parts of it can be manufactured in other countries and then

\(^{80}\) Oliver, D., Fractals, 1996, ed. Teora
assembled in another country and sold in a different country in association with a brand. And that was the easy part of definition, because it has to do with tangible products, but what about services like: financial, educational, medical, tourism, all intangible, yet we can wonder about their COO. Not to mention that in 50 years of research new associated terms were introduced, like region of origin, city of origin, place of origin, culture of origin. For consumers, it matters at some degree the country written in the “Made in…” label, but it matters even more the mental construct they associate with a product or service and called the COO. This mental multi-construct involves past experiences, national stereotypes, country images, familiarity with the product/service and with the country, beliefs, thoughts, attitudes, behavior toward the product/service and the country. And regarding to this complex mental construct, new questions appeared: how and why it is formed, what factors can influence it, how does it change, how can we use it. As the research of the fractals grew through examples and application, so did the COO research through case studies on different classes of products, with different (in size and structure) samples of consumers. Fractals are complex structures, therefore highly sensitive to initial conditions, meaning a slightly change into initial conditions can lead to totally different results. The differences in COO research findings are due to the slightly changes in methodology or products/services or where the respondents are originated from.

**COO Effect On Product Evaluations – First Research Avenue**

In 1965, Schooler conducted the first empirical study regarding consumers’ evaluations of a product. A group of students from Guatemala had to evaluate identical products, labeled Guatemala, Mexic, El Salvador and Costa Rica and COO was the only information available. They evaluated the products labeled El Salvador and Costa Rica lower than the other two. Schooler explained the result introducing the term Country of Origin Effect on product evaluation. In this single-cue experiment, Schooler found out that lower evaluations of products are related to a general negative attitude toward people from the COO. A confirmation of Shooler’s first study could be found 40 years later (Verleghe and Steenkamp, 2005). One of the first attempts of the mental multi-construct of COO was based on the information provided by the “made in” label to consumers, the construct is the result of their past experience with similar products, learned stereotypes and

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reputation of the products and perhaps more general images of traditions and customs of people from COO (Darling and Kraft, 1977)\(^8\) and COO might be used in measuring the competitive strengths and weaknesses of a country, comparing to other trading competitors. (Banister and Saunders, 1978)\(^9\). The effect of the COO is uneven, there is an inverse relationship between COO and product availability or familiarity (Parameswaran and Yaprak, 1987)\(^8\), as well as an inverse relationship between the need for cognition and COO (Zhang, 1997)\(^6\).

In multi-cue experiment, as opposed to single-cue one, the COO effect was compared with warranty and retail store image and the findings of the experiment were that the lowest effect was for store image, the highest effect for warranty and COO effect in between and there was a significant combined effect of all three (Thorelli, Lim and Ye, 1989).\(^7\) Ahmed and D’Astous confirmed in 1992 the results of Thorelli, Lim and Ye using a nine-point bipolar scale and a different methodology.\(^8\) Other comparisons between the COO of the products, price and quality as cues were made and it was found that COO is less important than price and quality as choice determinants. (Elliot and Cameron, 1994)\(^9\). The salesmen ranked COO as the least important cue for a product comparing to brand, price and warranty and brand reputation seems to be the most important in buying decision from salesmen point of view. (Astous and Ahmed, 1999).\(^6\) When consistent multiple cues are present, their influence is interactive rather than singular,

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meaning that price and COO interact to influence product evaluation. (Miyazaki, Grewal and Goodstein, 2005)  

In the first attempt to elaborate a theoretical framework for the COO, dimensions of COO processing were identified, namely cognitive dimension (using COO for the product quality); affective dimension (considering COO as a link between the product to emotional benefits and social status); normative dimension (relating COO to personal norms). The economic development of a country has a significant impact on COO evaluation. Consumers’ decision to purchase or not some specific products from a country means a vote in favor or against the policies, practices or actions of that country. The study of Obermiller and Spangenberg(1989), developed by the study of Verlegh and Steenkamp( 1999), made a significant contribution to the COO theoretical framework.

**COO Effects On Perceptions Of Product Quality-The Second Research Avenue**

COO was conceptualized as an extrinsic cue, as opposite to the specific attributes of a product, seen as intrinsic cues, COO effect diminishes if COO information is one among the others and COO is perceived as a surrogate for the quality of the product(Olsen and Jacobi , 1972). In addition to a quality cue, COO has a symbolic and emotional meaning to consumers, inducing a mental map that influences the way consumers process the information of the product(Wyer and Li, 1994). There is a relationship between the products involvement and the COO: the higher is the level of product involvement, the stronger is the effect of both COO and product attributes(Ahmed and D’Astous, 1993).

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93 Verlegh, P.W.J.; Steenkamp, J.B.E.M., 1999, A review and meta-analysis of country-of-origin research  
Lotz and Hu showed interest in finding a practical way to reduce negative COO beliefs and, in 2001, they advanced the solution to expose the consumer to disconfirming product information followed by high quality products. They found out that consumers associated the product quality with the economic and social conditions of the COO. They found that if a plant location is changed in order to benefit the lower labor costs due to COO stereotypes, the implication for the welfare of the firm could be quite the opposite.\footnote{Lotz, S. L. and Hu, M. Y. (2001) “Diluting negative country of origin stereotypes: a social stereotype approach”, Journal of Marketing Management, 17 (1-2), pp. 105-135}

The separate impact of COO on product evaluation, product quality and purchase intention had been studied and it was proved that COO had a strong effect on product quality evaluation or on perceived quality of the product, but no significant impact on purchase intentions (Pecotich and Rosenthal, 2001).\footnote{Pecotich, A. and Rosenthal, M.J., 2001.\textit{Country of origin, quality, brand and consumer ethnocentrism}, Journal of Global Marketing, Vol. 15(2), pp. 31-60.} The findings of Kotler and Gertner’s study from 2002 were as follows: COO is an extrinsic cue in product evaluation, COO is an independent variable and attitudes towards the perceived quality of a product the dependent variable, country image is a summary construct \footnote{Kotler, P. and Gertner, D. (2002), “Country as brand, product, and beyond: A place marketing and brand management perspective”, Journal of Brand Management, Vol 9 (4-5), pp 249-261} They confirmed Olsen and Jacobi’s study from 1972, considering COO as an extrinsic cue and using the summary construct for COO.

**Purchase Intention & Decision To Buy - The Third Research Avenue**

Yaprk found in his PhD dissertation in 1978 a significant correlation between the purchase intention and the COO attributes regarding specific brands. He proved that general country attributes, as well as general and specific attributes, could affect purchase intention.\footnote{Yaprk, A. (1978), “Formulating a multinational marketing strategy: a deductive cross national consumer behavior model,” PhD Dissertation, Georgia State University.} The correlation between the buying decision and the COO image is direct and positive, so consumers have strong purchase intentions for products from countries about they have favorable country images. (Chao, 1989)\footnote{Chao P. (1989), Export and reverse investment: strategic implications for newly industrialized countries, Journal of International Business Studies, vol. 20(1), pp.75-91.}

Products made in developing countries, which are associated with unfavorable images, attempt to disguise the “made in” information by hiding the COO information. The impact of COO on purchase intention depends on the nature of products: COO has a significant impact on purchase intention.
for luxury or public consumed products, yet COO is not significant at all for necessities or private products. (Piron, 2000).  

In 2002, Baker and Bellington said that COO beliefs become more important when the consumers don’t have enough knowledge to reduce the risk of purchase behavior. This study confirmed Zhang’s study from 1997 concerning the consumers’ need for cognition.

COO has a direct effect, as well as an indirect effect: the COO information had a direct effect on product quality evaluation, which had an impact on perceived value, which had an impact on purchase intention. (Hui and Zhou, 2002)

When consumers can evaluate all the intrinsic product characteristics as well as the effect of extrinsic cues, including the COO cue, the COO has more influence on consumer’s product evaluation than on purchase intention. (Rezvani, 2012)

Predictors, Antecedents, Moderators Of COO Effect- The Forth Research Avenue

The consumers’ opinions and attitudes are not good predictors on consumers’ behavior, therefore findings of the studies on COO effects on consumers’ opinions and attitudes should be transferred to consumers’ behavior with caution. COO effect was smaller than price and quality attributes. Some information cues of products, like price and quality, may have stronger effect on evaluations of products than COO cue. (Etterson, Wagner and Gaeth, 1988)

The moderators of COO effect on buying decisions: COO economic and political maturity, levels of economical and technological development, traditions and historical relationships. (Hooley, Broderick and Moller, 1998) The value of COO effect is moderated by variables such as

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technical complexity, consumer involvement, familiarity and prior experience with the product. Consumers showed the same importance on COB and COM(Eroglu and Machleit, 1989)\textsuperscript{108}. An opposite result was found by in 1993 by Ulgado and Lee: consumers use both brand name and COM, but when these were the only information. When other information occur, the brand name matters and COM is less important.\textsuperscript{109}

Four COO antecedents were identified: familiarity with the products, beliefs regarding products, ethnocentric tendencies and affective feelings toward COO in order to predict willingness to buy.(Luisa and Papadopoulos, 2003)\textsuperscript{110}

In 2012, Fisher, Diamantopoulos and Oldenkotte found out that COO has a positive impact on the willingness to pay, influencing what the consumers want to buy and how much are they willing to pay. They also found out that the brand familiarity has a negative moderating influence for high-involvement products, yet no influence for low-involvement products.\textsuperscript{111}


In 1986, Hugstad and Durr wanted to find out how important is COM for consumers and proved that 70% of US consumers consider of no or little importance the COM of the product they bought, yet 74% of the consumers consider COO important when buying cars comparing to only 20% when buying T-shirts\textsuperscript{112}. An year later, Hester and Yuen assessed how aware were US and Canadian consumers of the COM of the clothes they just bought. They found out that only 20% of Americans and 25% of Canadians were aware of the COM and even more 52% of Americans and 65% of Canadians

have no idea of COM and no interest to find out. In 2002, Usunier found out that, among the French consumers, only 35% knew the COO of the electronics they just have bought and only 16% have a favorite COM.

Chao wanted to find out in 1993 which of the following COD, COA and price are more important for consumers when evaluating the quality of a hybrid product and he proved that price is the most important and COA the least important in the evaluation process.

COO is equally relevant to COB and a more lasting factor in consumer’s product evaluation than the brand name (Tse and Gorn, 1993). COM and COB are important in consumers’ evaluation of product quality, as well as on willingness to buy. (Iyer and Kalita, 1997) The organizational consumers tend to rank COD as more important than COA and COB, yet for household consumers, COD and COA have the same importance and brand name is more important than COO name. (Ahmed and D’Astous, 1995)

Ahmed and D’Astous found out in 1995 that a negative impact of COO can be offset by a prestigious COA and also that a positive COO may be damaged by a less prestigious COA. In the absence of COM information, consumers assume COB as being COM for the product. The lower the COO image is, the greater discount the consumers expect (Nebenzal, Jaffe, 1996). In 2005, Samiee’s empirical test showed that consumers have limited knowledge about COB at the point of purchase.


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confirming Liefeld’s results from the previous year. Consumers perceived a lower quality of the products when COB is ranked better than COM and the warranty strategy could overcome the risks for hybrid products (Tan and Leong, 1999). Consumers placed more weight on COP than on COA or COD and this effect is moderated both by product type and product complexity (Insch and McBride, 2004). For products with status symbolic meanings (automobiles), consumers from emerging countries are more sensitive to COD than for more private goods (television sets), for which COD and COM/product fit are important. (Hamzaoui and Merunka, 2006)

**Brand And COO- The Sixth Research Avenue**

The term *brand origin*, meaning the perceived place of the brand, was introduced in 1996 by Thakor and Kohli. Their finding is that, although sometimes consumers are well aware of the country where the product was designed, the country where the product was made in, they still associate the brand origin with a specific other place. They also found out that most of the consumers ranked the developed countries higher than developing countries. COO evaluation operates through the brand equity construct rather than directly on product evaluation and purchase intention. The magnitude of COO effect is moderated by product complexity, product importance, product familiarity. The price information trumps COO information when both are known to consumers (Lin and Kao, 1994). The relationship between the brand popularity and the country image proved that a brand can create brand popularity without a positive country name equity and also that a country name can produce positive value for the brands of this country. (Kim and Chung, 1995)

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The brand image can act as a protective shield against the negative COO evaluations, so, associating a brand with a strong positive image with a country with low quality reputation will improve the COO evaluation (Jo, Nakamoto and Nelson, 2003)\textsuperscript{128}. If the products of a brand cannot transfer its promises as customers expected from its COO image, negative attitudes and feelings towards the brand may result (Paswan and Sharma, 2004)\textsuperscript{129}. Producers from developing countries should strive to offset negative suppositions toward their country when introducing a new brand on a foreign market and, therefore, they need to better understand the COO effect(Ongel and Ongel, 2014)\textsuperscript{130}. The place of brand replaced the place of manufacturing and the major effect of place of origin is a positive relationship between a product category and a place.( Andehn, Berg, 2011)\textsuperscript{131}

**Stereotypes In Product Evaluation- The Seventh Research Avenue**

Even from 1967, Reierson considered the need for further investigations on relationship between COO and national stereotypes\textsuperscript{132}. Consumers associate COO with product quality, but also with feelings of national pride and memories of past vacations (Botschen and Hemettsberger, 1998).\textsuperscript{133} In 1999, an almost unique study in the COO literature was made by Burgess and Harris in South Africa and found a significant influence of national identity on consumers behavior\textsuperscript{134}. Case studies conducted in 2001 by De Wet G, De Wet M and Pothas found that COO effect is different within country, depending if consumers were Black South Africans or

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\textsuperscript{134} Burgess, S.M. and Harris, M. (1999), “Social identity in an emerging consumer market: how you do the wash may say a lot about whoyou think you are”, Advances in Consumer Research,vol. 26, pp 170-175
not. In 2005, a case study was made in Canada by Laroche, Papadopoulos, Heslop and Mourali, who found out that COO effect depends if the consumers were French speakers or English speakers.  

Host country stereotype might influence the immigrants’ COO evaluations. LISREL was used to prove that stereotype beliefs are a precursor to COO evaluations, therefore is more than an antecedent of COO effect on cognitive or behavior responses. Using structural modeling, no direct relationship between COO and purchase decision was found, yet a direct impact of COO on product evaluation was found and the product evaluation significantly affected purchase decision. (Parameswaran and Pisharodi, 2002) 

Country stereotypes significantly influenced COO evaluations and that country stereotypes are spontaneously activated by the presence of COO information (Liu and Johnson, 2005). Consumers' perceptions toward COO are a stereotype and are not based on opinions regarding products made in a specific country. (Chattalas, Kramer and Takada, 2008) 

Consumers’ Preferences For Foreign Products-The Eighth Research Avenue

In 1972, Anderson and Cunningham found out that COO effect is much stronger among the less educated consumers, as well as an inverse relationship between consumers’ dogmatism and their preference for foreign products. Young consumers or consumers with a low income are more favorable to foreign products comparing to other consumer classes (D’Astous and Ahmed, 1996). Their results that does not sustain the ones of Shimp and Sharma from 1987.

The Canadian consumers ranked their national products higher than similar products from other 12 countries, regardless of the economical development of the country (Heslop and Wall, 1985). In 2002, Laroche, Papadopoulos, Heslop and Bergeron introduced the term of consumer clusters, based on the consumers’ background and found out that, among Canadian consumers, buying behavior differ accordingly cultural and language ties and there are consumer clusters in countries with different backgrounds. European consumers tend to rank foreign goods as higher quality than domestic ones and this tendency affect consumers’ preference, perception and purchase intention. (Ozretic-Dosen, Skare and Krupka, 2007)

Han and Terpstra concluded in 1988 that there is an effect of COO image on products from foreign countries. Consumers’ beliefs were measured using five attributes, originally developed by Nagashima in 1970, namely: technically advanced, prestigious, workmanship, price, serviceability. They also found out that, for consumer’s evaluation on product quality, COO matters more than COB.

A new term, animosity, was introduced in 1998 by Klein, Ettenso and Morris and they studied the transfer of animosity toward countries to animosity toward purchased products from those countries. Their findings are consistent with those of Hong and Wyer from 1989 regarding the consumers’ association of the quality of the product with the economic and social dimensions of the COO.

Collectivistic cultures have the tendency to evaluate domestic products over foreign products and the COO effect is reduced under high–consumer involvement. Collectivist cultures prefer imports from developed countries to their own products. On the other hand, individualist cultures

evaluate home products more favorable only when they are clearly superior to foreign products. (Gurhan–Canli and Maheswaran, 2000) 147

A critique made by Laroche, Papadopoulos, Heslop and Bergeron in 2003 was reconsidering the national market as being made of homogenous consumers and, therefore, the COO cross-cultural studies are, in fact, cross-national studies. They found out that consumers’ sub-cultural differences influenced COO evaluation. Consumers tend to buy from ethnically affiliated countries with which they had strong cultural ties 148. These findings supported the ones of Laroche, Papadopoulos, Heslop and Bergeron from 2002.

Ethnocentrism And COO Effect- The Ninth Research Avenue

Shimp and Sharma introduced in 1987 the concept of ethnocentrism to describe normative-based reactions to foreign products, as well as the construction and validation of the CETSCALE. Their study demonstrated that consumer ethnocentrism is a moderator of consumers’ beliefs, attitudes, purchase intentions and purchase. They found out that the COO effect is much stronger among the elderly. 149

The relationship between ethnocentrism and lifestyle patterns was investigated in 1999 by Kucukemiroglu and he discovered that less ethnocentric Turkish are more fashion conscious and leadership oriented and non-ethnocentric consumers tend to have more favorable beliefs and attitudes toward foreign products. 150 Watson and Wright studied in 2000 beliefs and attitudes of non-ethnocentric consumers and found out that non-ethnocentric consumers might evaluate foreign products more favorable because the COO of the products is not the home country and COO is less important for non-ethnocentric consumers, who tend to evaluate foreign products based on their qualities. 151 The consumers’ process information regarding foreign brands is made in a top-down manner for high-ethnocentric

consumers and in a bottom-up manner for low-ethnocentric consumers. (Supphellen and Rittenburg, 2001)\textsuperscript{152} COO is a stronger cue than brand image and highly ethnocentric consumers have more faith in the quality of prestigious brands (rather than home grown brands), manufactured in developed countries and reject the idea of home-grown brands being made in developing countries. (Jennings and Phau, 2002)\textsuperscript{153}

Consumers with high ethnocentrism would like to protect the domestic products and economy and might refuse to accept the products imported from other countries (Chryssochoidis, Krystallis and Perreas, 2007)\textsuperscript{154}. Consumers with a high level of ethnocentrism have great preferences for the services of the home country. (Ferguson, Dadzie, and Johnston, 2008)\textsuperscript{155}

In 2011, Sharma introduced two concepts related to ethnocentrism, namely materialism and value consciousness, in order to investigate the difference on COO effect on products evaluation and purchase intention for consumers from developed countries, compared to consumers from emerging countries. The findings were that consumers from developed countries and from emerging countries prefer imports from developed countries, although the preference is stronger for consumers from emerging countries. Also the negative perceptions for imports are stronger for consumers from emerging countries.\textsuperscript{156}

**Longitudinal Studies On COO-The Tenth Research Avenue**

The first longitudinal study had a Japanese author, Nagashima, who made two studies in 1970 and afterwards in 1977 on businessmen perceptions regarding the “made in” concept.\textsuperscript{157} And so he discovered that

\textsuperscript{152} Supphellen, M., Rittenburg, T.L., 2001. Consumer ethnocentrism when foreign products are better. Psychology & Marketing, vol.18 (9), pp.907-927


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COO attitudes may change over time, namely improving of “made in Japan” and weakening of “made in USA”. Nagashima proposed a semantic scale to measure the country image, the twenty items were grouped in five dimensions: price and value, service and engineering, advertising and reputation, design and style, consumers’ profile.\(^{158}\) In 1987, Papapopoulos, Heslop, Graby and Avlonitis confirmed the earlier study of Nagashima and concluded that the so called “made in…” stereotype can change, therefore, the consumers’ perception on foreign goods can change over time \(^{159}\). In 2002, Darling and Puetz evaluated the impact of COO on Finish consumers, using the same questionnaire and similar samples of consumers every five years between 1975 and 2000. The findings were that the changes in Finish consumers’ attitude during 25 years were consistent, significant and continuously supported Nagashima’s findings \(^{160}\). The study of Beverland and Lindgreen from 2002 supported Nagashima’s findings, as well previous findings, that COO is highly contextual and it can change over time. They found out that, at firm level, the COO effect is opposite to the COO effect at personal level \(^{161}\). In 2008, Heslop, Lu and Cray conducted a longitudinal study on country image effect before, during and after a regional crisis and proved that a country image can change in time, but also can change back post crisis. \(^{162}\)

**Relationship Between Product Evaluation And Degree Of Economic Development- The Eleventh Research Avenue**

In 1969, Schooler and Sunoo came up with a practical solution to consumers’ bias toward products from less developed countries, namely using a regional “made in…” label, instead of national “made in…” label \(^{163}\). Although it sounds tempting, it was proved to be a dead end, yet in 2012 WTO launched the “made in the world” initiative. In 1971, Schooler

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questioned the previous solution advanced in 1969 by himself and Sunoo and showed that regional labeling is not more effective than national labeling for US consumers. He also found out a positive relationship between product evaluation and degree of economic development, as well as a strong correlation between the culture and the political climate of the country with COO economical development. A study made in 1974 by Dornoff, Tankersley and White using regular US consumers instead of students found that imports from developed countries are ranked higher or same as national products in terms of quality, supporting Schooler’s findings from 1971 for consumers with high level of education, but for the other categories.

The products from industrialized countries tended to be more favorably evaluated than products from developing countries (Gaedeke, 1973). Indian students rated higher products from UK comparing to similar products from Taiwan and this could be explained by historical ties with UK (Krishnakumar, 1974). In his PhD dissertation from 1978, Wang proved that US consumers evaluated very low the USSR products, although the same consumers evaluated very high the USSR economic development. Wang said this result may be explained by political variable.

Two variables which influence the decision to buy foreign products, namely: the degree of economic development and the degree of political freedom were introduced by Crawford and Lamb in 1981. In 1985, Garland and Crawford confirmed the findings of Crawford and Lamb from 1981, meaning that the political stability and the degree of freedom in the COO had a significant impact for industrial buyers. COO image is affected by consumers’ perception of similarity between the consumers’ home country and the COO of a product, as well as by consumers’ political,


cultural and belief system. For instance, US consumers are more receptive to products from developed countries, less receptive with products from developing countries and not at all receptive to products from poor countries. COO effects became intangible barriers in entering new markets for brands from developing countries to enter international markets, as consumers have bias toward imported products. (Wang and Lamb, 1983)  

In an interesting experiment on COO moderators made in 1991 by Cordell, COO, price and financial risks were manipulated and the results were that when financial risk was high, consumers are skeptical toward products from less developed countries and, for the same category of products, there was no interaction between COO and price. He also found out that, when a COO label makes an association with a negative COO image, consumers tend to evaluate the product unfavorably.  

Consumers’ beliefs regarding the higher quality of products from developed countries are due to consumers’ beliefs that workers from developed countries are more technological sophisticated and, therefore, more able to make quality products (Li and Monroe, 1992). Consumers from developing countries perceived the foreign products as being of higher quality and tend to positively evaluate the foreign products when associated to COO with a better image (Ger, Belk and Lasicu, 1993). In 1994, Okechuku came to opposite findings than Elliot and Cameron, namely COO had at least the same importance as brand or price and is more important than quality and warranty. He proved that when products made domestically were not favorable or acceptable, consumers would select products made in developed countries overseas.  

Products made in developing countries which are associated with unfavorable images attempt to disguise the “made in” information by choosing a foreign brand name, which sounds like being from a developed

country (Leclerc, Schmit and Dube, 1994). As developed countries are often seen to have positive COO associations, products “made in” developed countries are usually evaluated positively (Kim, 1995). Consumers from developed countries tend to have a higher quality perception on domestic products compared to foreign products and, therefore, this tendency enhances the influence of ethnocentrism on purchase of domestic products (Ahmed and D’Astous, 2001). Consumers from under-developed countries prefer imports from developed countries to similar products from other under-developed countries (DeShields, Kaynak and Kara, 1996). Consumers from less developed countries consider imports from developed countries superior to products made in their home countries (Kaynak, Kucukemiroglu and Hyder, 2000). Consumers from developing countries consider products from developed countries superior to home made products (Kleppe, Iverson and Stensaker, 2002). In developing countries, consumers’ willingness to buy and intention to buy is increasing for products made in developed countries (Amine, 2008). In 1996, interviewing 300 shoppers in China, Zhang found out that the economical dimension of the COO, meaning if COO is perceived as a developed country, it matters more than the cultural similarity if these countries are perceived as developing countries. Addressing the same critique as the study of Badri, Davis and Davis is the study of Leonidou, Hadjimarcou, Kaleka and Stamenova from 1999. The findings were similar to those in the above mentioned study.

namely consumers highly ranked products from developed countries comparing to products from developing countries.\textsuperscript{184}

The tendencies of the collectivist cultures are for imports from developed countries, but for public luxuries only. The Indian consumers attributed higher credibility on COO perceived as being technological advanced and economical developed. Another finding is that COO effect is greater for high-involvement products than for low-involvement products.(Kinra, 2006)\textsuperscript{185}

As the reputation of a country begins to evolve based on the quality of the existing products, these perceptions of superiority or inferiority are also transferred to new products that originate in that country (Maheswaran and Chen, 2009)\textsuperscript{186}. They propose the concept of “Nation Equity”- “equity or goodwill associated with a country”. These associations often go beyond company or product performance-related perceptions and may be positive or negative depending on culture, politics, economic development, religion and other macro factors.

**COO Image- the 12\textsuperscript{th} research avenue**

In order to measure the COO effect, Chasin and Jaffe used in 1979 performance attributes to make the COO profile. They used ten product attributes: quality, workmanship, style, dependability, advanced technology, terms, value for money, on-time delivery, reputation and maintenance, most of them still being used in nowadays COO literature. Their study showed consumers’ bias to products from developing countries\textsuperscript{187}. A variation of Chasin and Jaffe’s study was the one of Ofir and Lehmann, who, in 1986, used different attributes of the country, namely modern, exciting, entertaining, challenging, friendly, honest, sophisticated, romantic, picturesque and expensive.\textsuperscript{188}

The first study trying to find a relationship between the country image and the product image was the one of Morello in 1984 and, although


such a relationships wasn’t found, it proved the COO effect on buying behavior.\textsuperscript{189}

Johanson, Douglas and Nonaka(1985) established the correlation between the COO image and the information availability, as well as the familiarity with the product \textsuperscript{190}. According to Jaffe and Nebenzahl’ study from 1988, without familiarity with a product from a country, country image acts as a halo effect. As consumers’ experience with products or brands coming from a certain country increases, a summary construct becomes more apparent.\textsuperscript{191}

In 1989, Han introduced the term \textit{country image} as “consumers’ perceptions of quality for products made in a given country”. Then he introduced the concepts of “hallo construct” or “summary construct” for country image. The hallo construct means that consumers mentally transferee the country image attributes to unfamiliar brands or products, while the summary construct means that consumers made a mental image for a country based on their knowledge, beliefs and attitudes toward products or brands. He discovered that consumers ‘perceptions on economic development, technological level, political status of COO may influence brand evaluation \textsuperscript{192}. A year later, Han investigated the country image influence on consumers’ choice behavior, using the attributes of the country: technical advancement, prestige, value, workmanship, price and serviceability. The main findings were that consumers’ willingness to buy is related to COO economical, political, cultural characteristics and consumers perceptions are influenced by similarity regarding political and cultural climate between COO and home country\textsuperscript{193}. Based on COO summary construct of Han, Knight and Catalone discovered in 2000 that among consumers with high knowledge on product, COO image could serve to summarize their beliefs about products and could affect brand attitude. Their findings were consistent with those of Chao from 1989 regarding the association of

\begin{itemize}
\item \textsuperscript{192} Han, C. M., 1989, Country image:Halo or summary construct? Journal of Marketing Research, vol 26(5), pp.222-227
\item \textsuperscript{193} Han, C.M. (1990), “Testing the role of country image in consumer choice behaviour”, European Journal of Marketing, Vol 24(6), pp. 24-39
\end{itemize}
favorable country image perceived by consumers and consumers’ purchase intention. They found that consumers from developed countries consider domestic products superior to those from developing countries\(^{194}\). The dynamic model presented by Jaffe and Nebenzahl in 2001 implies that, over time, the role of country image can transfer from a halo effect to a summary effect\(^{195}\). They showed that this dynamic model could provide a solution to the conflicting empirical evidence dilemma presented in the previous studies.

The relationship between COO cue and attribute is shaped by products and country images, these images being mental representations of the country and people, products of the country, culture or symbols(Ger, 1991)\(^{196}\). A match between product category and country image perceptions, using four dimensions for country image: innovativeness, design, prestige, and workmanship was found. (Romeo and Roth, 1992)\(^{197}\).

Four steps of the COO effect were identified: the first step is the overall COO image; followed by overall COO image and influences from other products from the country; the third step is COO image plus beliefs and attitudes toward the product and the last one is comparison with products from other countries and behavior toward the product (Papadouloulos and Heslop, 1993)\(^{198}\). A new concept, contextualized product-place image-CPPI, refining the previous PCI- product-country image, of Papadoulous and Heslop, was introduced in 1998 by Askegaard and Ger.\(^{199}\).

The three facets of COO are GCA-general country attributes: political system, economic development, culture, education level, technical skills, standards of living; GPA-general product attributes: prestige, value, service, attractiveness; SPA-special product attributes: style, maintenance,


quality, availability of parts(Parameswaran and Pisharodi, 1994) 200. An interesting finding of this study supporting my hypothesis that COO is a complex concept, highly sensitive to initial conditions, is that COO image scale should be made accordingly the country. The country image can be decomposed in macro country image and micro country image and the two facets of country of origin image are: the macro-image, involving three dimensions: politics, economy, technology and micro-image: regarding product specific properties.(Pappu and Quester, 2007) 201

In 1998, Lampert and Jaffe introduced the concept of product image life cycle, supporting Niss’s study, as well as a dynamic model of the country image, confirming Nagashima’s findings. In this perspective, the COO hallo effect is more important in the first two stages of the product image life cycle. They also proved that consumers accept new brands or products from countries with favorable images. They found out that consumers’ country image changes over time owing to their experience with products made in the country202. Lee and Ganesh clarified in 1999 the term country image, a construct created by products from a country, but also economical development, political status, technological advancement of the country. They found out that for hybrid products it matters the COM, as well as the COB. Highly involved consumers initially show a great sensitivity to COO, yet, as they become more familiar with the product, this sensitivity diminished 203. In 2002, Olsen, Nowak and Clarke studied the marketing of wine from COO with a negative image and they discovered that a negative COO effect may be offset using a consumer-based approach.204

**COO And Services- The 13th Research Avenue**

In 1997, Brunning conducted a study similar to Lanz and Loeb’s study, but in service area, investigating the COO, national loyalty and product choice and the main finding is that country attribute come after price

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in order of importance\textsuperscript{205}. In 2001, Jivalgi, Cutler and Winans, in their literature review, discovered only 19 studies in 20 years focused on COO effects on services. Their main finding is that the relationship between COO and services is similar to the one between COO and products\textsuperscript{206}. A study conducted by Ho and Foon in 2012, based on a sample of 80 international students, proved that the COO of the institution does not have a direct impact on students’ perception of services quality and on behavioral intentions \textsuperscript{207}. The results are opposite to Jivalgi, Cutler and Winans’ findings from 2001. Some patterns in the literature review regarding COO and services were identified: sensitivity to host country culture, cultural shock and reverse cultural shock, international students’ features and these patterns were supported by the findings of the study. (Tamas, 2014) \textsuperscript{208}

**Conclusion**

COO effect is a complex structure, highly sensitive to initial conditions, similar to fractals. Why the COO experiments cannot lead to similar results even though the conditions are similar? Supposing the same people will conduct similar research, using the same methodology, the same questionnaires, on the similar sample of respondents, like in the longitudinal studies, the results won’t be the same, because, meanwhile, time passed for the respondents, their beliefs and attitudes toward the product or the COO of the product had already changed. Like fractals, the COO effect is self-repeated, showing irregularity in every detail, therefore there is a COO effect on product evaluations, perceptions on product quality, willingness to buy, purchase decision, buying attitudes and behavior, on “made in...” label information, combined with warranty effect, price effect, quality effect, retail store image, brand loyalty, country loyalty. COO effect is impossibly to be described by regular shapes or theories and, although the theoretical background was enriched and developed by introducing the COO dimensions, the determinants, the antecedents, the moderators, the predictors, the stereotypes, the ethnocentrism, the animosity, the facets, the brand personality, the country profile, the halo construct, the summary


construct, the dynamic model, including the previous two, the consumers’ multicultural competences, the country image and so on. Yet, none of these theoretical constructs of frameworks could describe the COO effect and after 50 years of research no theory can explain the phenomena. Like fractals, COO effect is similar at any scale, so the research findings prove the existence of the COO effect regardless of the scale of both COO and consumers. No matter if the COO was decomposed in Country Of Manufacture-COM, Country Of Design, COD, Country Of Brand-COB, Country Of Assembly-COA, Country Of Parts-COP, no matter if for consumers there were considered the need for information, the education degree, the age, the gender, the familiarity with the products, the beliefs or the affects toward the COO of the product or the people of the COO, the loyalty to the brand, no matter if the product was low-involvement or high-involvement, luxury or regular, technological complex or not, if there were considered the general product attributes or the specific attributes, the COO effect was found. Like fractals, which can be found as geometrical shapes as well as in real life, the COO effect occurred from artificial single-cue experiments on convenient samples of students to complex realistic multi-cue experiments, involving consumers in different shopping areas, different countries in all continents, industrial or household buyers, businessmen or random chosen respondents. COO effect depends on macro factors, like country image or COO economical, social, cultural, political development, but also on micro factors related to product, COO, consumer or the relationships between them. The COO effect dimension was always fractional, similar to fractal dimension. In fractal theory, there is an interesting experiment to understand the relative dimensions. Let’s consider a ball made of string. If we are looking at the ball and we are much bigger than the ball, we will see it as a point, therefore its dimension is 0, if we come closer to the ball we will see it as a sphere, therefore its dimension is 3, if we are close to the ball and much smaller than the ball, we will see it as a surface, therefore its dimension is 2, if we are small enough and go into the ball, we will see the strings firstly as cylinders, with dimension 3, than as lines, with dimension 1 and so on. Similarly, if we study COO effect from product quality perspective, we will find one dimension, if we do the same from the willingness to buy perspective, we will find other dimension. The same pattern will repeat on different products, on different consumers, on different COOs, even on different respondent’s countries. But, the different dimensions aren’t contradictory, they are so due to the fractal nature of the COO effect. It is interesting to notice that the research in the area of the fractals didn’t focus on the theoretical framework, but on many practical applications in a wide range of domains and it seems that the research on COO effect would follow the same pattern, as for the practitioners finding
the COO effect for a specific product of a specific country in specific conditions is of high interest.

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