CORPORATE BRAND EXTENSIONS BASED ON THE PURCHASE LIKELIHOOD: GOVERNANCE IMPLICATIONS

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Abstract

This paper is examining the purchase likelihood of hypothetical service brand extensions from product companies focusing on consumer electronics based on sector categorization and perceptions of fit between the existing product category and image of the company. Prior research has recognized that levels of brand knowledge eases the transference of associations and affect to the new products. Similarity to the existing products of the parent company and perceived image also influence the success of brand extensions. However, sector categorization may interfere with this relationship. The purpose of this study is to examine Greek consumers' attitudes towards hypothetical brand extensions, and how these are affected by consumers' existing knowledge about the brand, sector categorization and perceptions of image and category fit of cross-sector extensions. This aim is examined in the context of technological categories, where less-known companies exhibited significance in purchase likelihood, and contradictory with the existing literature, service companies did not perform as positively as expected. Additional insights to the existing literature about sector categorization are provided. The effect of both image and category fit is also examined and predictions regarding the effect of each are made.

Keywords: Brand Extensions, Purchase Likelihood, Extension Attitude, Brand Knowledge, Greece

1. INTRODUCTION

The past three decades there has been a significant increase in the number of new entrants in the global market, which is mainly due to the increasingly trade liberalisation (Tsai, 2014). As the global-level competition has intensified (Cecere, 2013), and introduction costs for new services and products have increased, many well-known and established companies use brand extensions as a cost and risk reduction strategy (Bhat and Reddy, 2001). To enter new markets there are two main approaches Aaker and Keller (1990): line (vertical) extensions and brand (horizontal) extensions. For line extensions, the already established brand name is used to enter different segments of the same market. Contrarily, brand extensions are leveraging the existing image to enter a different market and/or product class. This approach is risky, as the company's image, reputation, and consumers' knowledge and experiences tied to the brand name (Song et al., 2010) are jeopardized. Misusing an established brand name to expand into unexploited markets is a double-edged sword; it could either be highly successful in generating consumer acceptance and enhancing the company's image, or have severe financial effect and ultimately ruining the parent company's most precious asset (Keller, 2003; Garefalakis et al., 2011; Dimitras et al., 2013).

Brand extensions gained popularity within the academic community after Aaker and Keller's (1990) study. Understanding the consumers' evaluation and decision process of brand extensions could be important predictors of the extension's success. Most

of the empirical evidence concerning consumers' extension attitudes has been examined on low involvement decision-making, and focused mainly on fast-moving consumer products (Song et al., 2010). These may be more accessible and largely recognised by consumers, but, under real marketplace conditions, companies of high-involvement products and services choose this strategy too. Keller (2003) suggested the further study of brand extensions, to the unexplored extension consumer behaviour towards 'intangible' services. This present paper answers the calls of Martinez and Perez (2009) for further research into the extensions of companies specializing in tangible products, extending to services, as well as Song et al.'s (2010) suggestions for a shift from low involvement, fast-moving consumer goods to technological products and services.

Lastly, cross-cultural dimensions have been recognised to influence extension attitudes (Sunde and Brodie, 1993; Aaker and Keller, 1993; Pina et al., 2013). Economic turbulence also impacts the consumers' behaviour (Manifava, 2015; Valášková and Klieštik, 2015), thus, Greece was chosen for this study, as it is a county which was severely impacted by an ongoing recession since 2004 (Council on Foreign Relations, 2017). The study focuses on the purchase likelihood of technological products and services extending to the same and the opposite sector, taking into consideration the following conditions:1) consumers' level of parent brand knowledge, 2) sector categorization, and 3) perceptions of image and category fit.

In the following sections we will explore the existing literature on brand extensions, as well as brand knowledge, sector categorization and perceptions of image and category fit, to get a more thorough understanding of these concepts. The methodology followed on this paper will be outlined and analysed in section 3 and results will follow in the next section. Lastly, conclusions will be drawn, and the implications, as well as limitations will be discussed.

2. LITERATURE REVIEW

2.1 Brand Extensions

Brand extensions are a very appealing approach for companies that aim for growth and seek expansion in different markets, as the use of an established brand name is an advantage. Brand name knowledge, recognition and existing brand perceptions are used for consumer evaluation of brand extensions (Aaker and Keller, 1990; Rangaswamy et al., 1992; Bhat and Reddy, 2001; Hem et al., 2001). Before the introduction of a brand extension consumers have certain beliefs and attitudes for both the parent company and the product category of the extension (Czellar, 2003; Tsai 2014; Kim et al., 2014). This existing brand knowledge, is used as a platform to successfully enter a new product class with the same name (Broniarczyk and Alba, 1994).

However, brand extensions are a bold strategic move. When an established brand exploits its name that is associated with certain beliefs and existing perceptions to enter a new market there are risks. An unfitting brand extension could potentially have a negative impact on company's brand equity, which may be difficult to recover from (Kim et al., 2001).

Moreover, if the extension category, or the brand extensions itself, are conflicting with the core values of the parent brand, then inconsistencies in consumers' minds are created (Aaker and Keller, 1990; Keller, 1993; Kim, Lavack and Smith, 2001, Goedertier et al., 2014; Kim et al., 2014; Hem et al., 2014). Furthermore, there is a strong 'anchoring' in the original product category when brands are prototypical (Nedungadi and Hutchinson, 1985), and companies risk devaluation of the brand name and undesired associations to the company (Kim et al., 2001; Kim, Lavack& Smith, 2001; Hem et al. 2014).

2.2 Brand Knowledge

Positive emotions towards brands, such as trustworthiness, self-confidence security, joyousness and identification are evoked by the consumer's psychological bonds towards a brand (Tsai, 2011, 2014; Malar et al., 2011). The cognitive representation of a brand constitutes the brand knowledge of consumers. Weber and Crocker's (1983) "bookkeeping model" explains this change in consumer attitude during any encounter with new information. Asymmetrical and inconsistent information is also incorporated into the consumers' existing knowledge structures (Kim et al, 2001), and as the "conversion model", or else "sub-typing model" (Salinas and Perez, 2009; Martinez and Pina, 2010) suggests, new attitudes and beliefs emerging.

Given the above information on how information is recorded and processed, it is safe to say that some brands inspire more trust and have a stronger reputation (Chun et al, 2015), as a result of their successfully received marketing messages. Building a strong reputation and name in the marketplace takes time and marketing effort. The transfer of positive brand associations and perceptions to the new extension increases the credibility of the extension (de Ruyter and Wetzers, 2000). High-perceived brand quality leads to positive consumer judgements (Aaker and Keller, 1990; Volckner and Satter, 2006; Reast, 2005). This is believed to be due to different factors, such as, the innovative benefits of the brand (Chun et al, 2015; Song et al., 2010), and the resources of the company and its ability to extend (Aaker and Keller, 1990; Song et al, 2010).

However, Martinez and Pina (2010) claim that any low fit extensions will receive negative evaluations, regardless the familiarity with the brand image and strong reputation. Similarly, Hem et al. (2014), agree that brand name will not impact consumers' evaluations when there are inconsistencies between current and new category (Rangaswamy et al, 1993; Monga and John, 2010).

2.3 Sector categorisation

Services were considered to be an addition to the 4P's of products' traditional marketing. However, with the advancement of IT and the internet, a new service-dominant logic has been developed, recognising services as a different sector (Lusch et al., 2007; Vargo and Lusch, 2004). As far as brand extensions are concerned, the products' tangible and services' intangible characteristics have an impact on the development of new products and services. The fact that products require R&D and a fixed line of

production, remodelling their routinized manufacture processes is not easy. However, for services, minimal changes can entirely modify the service (Nijseen et al., 2006). Radical innovations from service companies are thus more acceptable than from product companies, due to their flexibility, which gives service companies a competitive advantage over product companies (Nijseen et al., 2006; Lusch et al., 2007).

Nevertheless, given the intangible nature of services, there is higher risk associated with their purchase, thus, it is common that judgements about a service brand extension rely on the brand image and reputation. Consequently, extensions introduced by stronger and more reputable companies will be favoured (Chun et al., 2015; Kim et al, 2014, Song et al, 2010), even when fit is low. Consumers will perceive higher similarity when a high quality brand extends (Salinas and Perez, 2009), whereas weaker companies will need to use innovative attributes (Chun et al., 2015) in combination with extensive marketing activities (Broniarczyk and Alba, 1994; Pina et al., 2013) to enter the consumer's consideration set. Luckily, as marketing activities are intensified in the online environment, the services sector tight relationship with the digital world facilitates the association between products with service providers (Song et al., 2010).

On the other hand, this risk is reduced in product categories, as consumers may have prior product-related knowledge that guarantees high quality and performance (Iacobucci, 1998; Lahiri and Gupta, 2005). Martinez and Pina (2010) argue that this is the case in service extensions as well, as a favourable parent brand image will lead to favourable evaluations of the extension in both the product and service sector. Furthermore, Pina et al. (2013) observed that brand extensions of services created under the same brand name, have a stronger reputation and higher credibility, and are less likely to be negatively affected when introducing a new product or service, whereas extensions of product companies are more sensitive in case of an unfitting extension. This is because, during the assessment of service brand extensions, information about the brand can be retrieved separately from the characteristics of the parent company's services, and particular focus is given to the perceived brand image quality (Song et al, 2010) leading to more favourable consumer judgements. Contrarily, when it comes to product extension evaluation, the focus of the customer is on the product's quality and performance (Song et al, 2010; Pina et al., 2013), which requires additional cognitive processing (Bhat and Reddy, 2001). Lahiri and Gupta (2005), as well as Pina et al. (2013) contradict this claim, and show that services are poorly evaluated due to the lack in consumers' trust in the new service's performance. In a like manner, Hem et al. (2014) conclude that tangible extensions are evaluated more positively compared to service extensions.

2.4 Dimensions of Fit

The more shared associations and fewer distinctions between the parent brand and the extension product or service, the higher the perceived fit (Aaker and Keller, 1990, 1993; Keller 1993; Sunde and Brodie, 1993; Kim et al., 2001; Czellar, 2003). Both dimensions of fit (category and image) have an impact on brand extension success. The consumers' perceptions of similarity and coherence will positively affect the assessment process and the end consumer attitude towards the new extension (Martinez and Pina, 2010).

In fact, consumers' perceptions about a brand or a product are shaped out of observations and environmental interactions, which are recorded and categorized in consumers' cognitive structures (Michel and Donthu, 2014). When marketing messages regarding new extensions are processed, and attributes of the product or service are recognised and differentiated, then, these get categorised in the cognitive structures that make up the parent brand schema (Chun et al, 2015; Kim et al, 2014; Wallpach and Kreuser, 2012; Bhat and Reddy, 2001). According to Song et al. (2010), individuals assign their own meanings, make different associations, and evaluate extensions in a different manner. However, as Broniarczyk and Alba (1994) point out, it is not always wise to evaluate based on the attributes of a product or service extension. In the case of substitutes and compliments, dissimilar objects can be classified together based on different relationships that the consumer perceives as logical. This is also the case when the consumer is exposed to marketing messages reinforcing the relationship of heterogeneous categories (Czellar, 2003; Egan 2015).

Consumers also develop relationships with certain brands that seem to appeal more to their needs. Brand extensions are often evaluated based on their existing knowledge about the parent brand. The brand image and reputation (strong vs weak companies) are thus believed to be contributing factors of a brands ability to extend to more dissimilar categories (Rangaswamy et al., 1992). This extendibility is due to the consumers' openness to form intangible associations in their brand schema (Pina et al., 2013). These findings suggest that perceived quality of the parent brand may not be influenced by perceptions of fit, since consumers perceive a greater analogy when the brand name remains the same (Salinas and Perez, 2009). Furthermore, reputable and innovative companies, especially in the services sector, motivate consumers, who self-categorize themselves to the innovation cluster (Tsai, 2014), to learn more about the attributes of the new extension. This diminishes the inconsistencies created by the low fit, keeping the brand image favourable.

However, Goedertier et al., (2014) provide empirical evidence that the prototypicality of a brand limits its chances for a successful low-fit extension. This makes it harder for brand extensions, as inconsistencies on image are more influential than inconsistencies in category (Kim et al., 2014; Salinas and Perez, 2009). Moreover, brands do not always expand to similar to the parent company's original category or sector, which may pose a problem to the extension success. Additional information about the attributes of the extension has also have an impact on evaluations of low category fit, especially in the services sector, where the innovative benefits of new extensions overpower consumers' category fit expectations (Hem et al, 2014; Chun et al., 2015). When examining extension dilution effects, Pina et al. (2013) argue that product companies show a higher level of vulnerability.

In conclusion, from the analysis of the literature, the following set of hypotheses was developed, in order to be further examined (Table 1).

Table 1. Summary of Hypotheses

H1: Higher brand knowledge is expected to have a positive impact on the purchase likelihood of brand extensions	**Section 2.2**
H2a: The purchase likelihood will be higher in service oriented companies than product oriented companies, irrespective of the sector type (service or product) they extend to.	**Section 2.3**
H2b: The purchase likelihood of brand extensions from a service oriented company is expected not to vary significantly based on the sector type (service or product) they extend to.	**Section 2.3**
H2c: The purchase likelihood is expected to be higher when a product oriented brand extends to a product, rather than a service.	**Section 2.3**
H3a: Perceptions of fit are expected to be positively and significantly related to purchase likelihood of brand extensions based on company sector.	**Section 2.4**
H3b: The unique and relative contribution of types of perceived fit (image and category) in predicting purchase likelihood of service and brand extensions is expected to vary based on the company and extension sector.	**Section 2.4**

3. METHODOLOGY

3.1 Pretesting Process

Two Pretests were carried out for the selection of the parent brands and the hypothetical brand extensions for the design of the following studies.

For Pretest I (Table 2), the cases were selected using convenience sampling, as these were easily accessible and convenient for the rapid response (Saunders et al., 2016). Twenty five brands from the consumer electronics sector were selected based on secondary online research (Stoller, 2017) according to their annual revenue (most profitable technology companies - 2016) (Garefalakis et al., 2017; Dimitras et al., 2017). Knowledge about the brand's products was rated on a 7-point Likert scale. Subsequently, participants had to decide, in which sector they believe that each of the parent companies belongs to (product sector, service sector, or both).

For Pretest II (Table 2), and the selection of the specific products and services, participants were selected using self-selection volunteer sampling (Saunders et al., 2016). From a list consisting of twenty-four preselected product and service categories, participants had to rate the extension categories for all four companies that were selected in Pretest I, where both the category and image fit were considered, using only the bold items from Table 3 (Category fit: similarity with the company's products, and image fit: whether the extension fits the brand image) (Bhat and Reddy, 2001).

The full scales for image and category fit could not be used, as the questionnaire already consisted of 24 products and services, which had to be rated for both image and category fit for all 4 companies, and using the full scale would be lengthy and lead to a low response rate. The products and services used for this Pretest were carefully selected to be relevant to the main study sample that the questionnaire was destined to (Völckner et al., 2010).

To sum up, four companies were selected from the pretesting process (Table 2). Google and Adobe were selected as the more and less known service companies respectively (Strong vs. Weak reputation service companies). Sony and Dell were selected as the more and less known product companies respectively (Strong VS.Weak product companies). Moreover, a total of eight high and low fit service and product extensions were selected from Pretest II presented in Table 2.

3.2 Pilot Study

A pilot study was conducted for quality purposes, as back translation was used for the scales that were developed in English. The sample (N=17) pointed out some syntax and grammar errors that were taken into consideration when designing the final version of the main study (Table 3).

Table 2. Pretesting Process

	Pretest I				*Pretest II*		
Purpose	Select four brands from the consumer electronics commerce sector (1 high & 1 weaker brand equity companies from each sector)				Select eight hypothetical brand extensions (2 high & 2 low fit extensions for each sector)		
Measures	7-point knowledge Likert scale (Brand familiarity-knowledge; 1=extremely unknowledgeable, 7=extremely knowledgeable). Whether the company is service or product oriented, or both.				7-point Likert scales (Category fit-Similarity; 1= extremely dissimilar, 7=extremely similar. Image fit-coherence; 1:not at all coherent, 7=extremely coherent)		
Sample	N=40 55% male, 45% female Age range: 60% 18-24 40% 25-34				N=25 64% male, 36% female Age range: 52% 18-24 32% 25-34 16% 35-44		
Results	**Service companies:**	**Mean**	**SD**	**Service:Product:Both**	**Extensions for product companies:**	**Mean (Sony)**	**Mean (Dell)**	**Total Mean Score**
	Google ↑	6.85	0.36	18:0:2	VR headset ↑ (P)	5.8	5.575	5.6875
	Adobe ↓	4.15	0.65	20:0:0	Home security sensors ↓(P)	2.9	2.325	2.6125
	Product companies:	**Mean**	**SD**	**Service:Product:Both**	Video surveillance system ↓(S)	2.15	2.325	2.2375
	Sony ↑	6.5	0.30	0:17:3	Subscription video on demand ↑(S)	5.8	5.05	5.425
	Dell ↓	3.95	0.58	0:20:0	**Extensions for service companies:**	**Total mean (Google)**	**Total mean (Adobe)**	**Mean**
					Music, podcast, and video streaming service ↑(S)	6.5	5.075	5.7875
					Online travel booking services ↓(S)	2.25	2.075	2.1625
					Speakers ↓(P)	3.35	2.575	2.9625
					Smartwatch↑ (P)	5.9	4.5	5.2

Table 3. Scales used in the questionnaires

Scale	Measured concept
Brand familiarity	
Dawar, 1996	FAMI1: familiarity with the brands products
	FAMI2: purchase frequency of the brands products
	FAMI3: knowledge of the brand's products
Perceived fit	
Aaker and Keller, 1990	*Category fit*
Taylor and Bearden, 2002	**CF1: The extension is similar to the brand's products**
	CF2: The firm's resources are helpful to make the product extension
	Image fit
	IF1: The product extension fits with the brand image
	IF2: Launching the extension is logical for the company
	IF3: Launching the extension is appropriate for the company
Extension Attitude	
Aaker and Keller, 1990	FA: favourability of the extension
Pryor and Brodie, 1998	PQ: perceived quality of the extension
	PL: likelihood of trying the extension

3.2. Main Study

The study was answered by 222 people from the general public, using both snowball and self-selection techniques (Saunders et al., 2016). Only 197 (88.7%) were successfully included in the study, the sample of which is analysed in detail in Table 4.

Table 4. Main Study Information

Purpose	Examine the effect of brand knowledge, perceived category and image fit and sector categorization, and their impact on the purchase likelihood of the hypothetical extensions of the four preselected product and service oriented companies.						
Measures	7-point Likert scales (Brand Familiarity-Knowledge; 1=Not at all knowledgeable, 7=Very knowledgeable. Category fit-Similarity; 1= extremely dissimilar, 7=extremely similar. Image fit-Coherence; 1: not at all coherent, 7=extremely coherent. Extension Attitude-Likelihood; 1=Extremely unlikely, 7=Extremely likely)						
Sample N=197	**Gender**		**Age range**		**Education**		**Occupation**
	58.4% 41.6%	male female	40.1% 44.2% 10.7% 5.1%	25-34 18-24 35-44 45+	46.2% 26.9% 13.2% 9.6% 4.1%	Undergraduate degree Postgraduate degree High school Vocational Ed. Diploma Ph.D.	45.7% 25.9% 17.8% 10.7% — Employed Student Self-employed Unemployed

Table 3 clearly represents in bold the measures used in this study, whereas Table 4 includes the Likert scales used for the questionnaires. Only one item was used from the each of the full scales, as the study focused on those. Moreover, to achieve a higher response rate the questionnaires had to be short and not time consuming.

4. ANALYSES AND RESULTS

4.1 Testing the Effect of Brand Knowledge (H1)

A series of independent samples t-tests were performed to test whether levels of brand knowledge have a significant impact on purchase likelihood of brand extensions. The findings indicated that there were significant differences between high and low levels of brand knowledge, but only for weaker brands (Adobe and Dell). For Google and Sony due to the high brand knowledge (and high median), we were unable to separate the group sample in groups and test purchase likelihood based on levels of brand knowledge (Table 5). The mean scores from Adobe and Dell indicated that participants with higher levels of brand knowledge were significantly more likely to purchase the hypothetical brand extensions introduced by the weaker companies.

Table 5. Means and SD for the brand extension purchase likelihood by company, based on levels of brand knowledge (N=197)

Variables	*Mean*	*SD*	*t*	*df*	*p-value*
Purchase likelihood (Adobe)	High: 14.17 (N=121)	5.75	-5.38	195	.033
	Low: 10.04 (N=76)	4.35			
Purchase likelihood (Dell)	High: 15.06 (N=108)	5.82	6.66	195	.000
	Low: 10.51 (N=89)	3.07			

Note: $p<0.001$, $p<0.05$

4.2 Testing the Effect of Sector categorization (H2a, H2b & H2c)

The results from the paired t-test analysis carried out to investigate (H2a) the impact of this effect revealed that Greek consumers are more likely to purchase extensions introduced by product oriented companies (Mean= 3.59) rather than service oriented companies (Mean= 3.32). However, looking at the obtained mean scores there was a certain level of ambivalence of Greek consumers towards hypothetical brand extensions in general.

A series of paired t-tests analysis were carried out to explore the level of purchase likelihood based on the company sector and the extension sector. The first set of tests screened for differences on levels of purchase likelihood within each company separately based on the extension type (Table 6). Results indicated that the purchase likelihood was significantly higher when companies extended to the same sector. In contrast to H2b that the purchase likelihood of brand extensions from a service oriented company would not vary significantly based on the sector type (service or product) they extend to, the results indicated that Greek consumers were less

likely to purchase a product type extensions introduced by the service companies Google and Adobe. The same was true for the product-oriented companies extending to services.

Table 6. Paired t-tests: purchase likelihood by company based on extension sector (within each company) (N=197)

Variables		Mean	SD	t	df	p-value
Pair 1 (Google)	FBSERVEXT	7.97	2.39	11.36	196	.000
	FEPRODEXT	5.98	3.14			
Pair 2 (Adobe)	SNSERVEXT	6.87	2.81	-7.32	196	.000
	SNPRODEXT	5.7	3.23			
Pair 3 (Sony)	SASERVEXT	6.93	3.29	-7.42	196	.000
	SAPRODEXT	8.77	2.67			
Pair 4 (Dell)	LESERVEXT	5.79	3.16	7.33	196	.000
	LEPRODEXT	7.22	2.78			

Note: p<0.001, p<0.05

Further analysis was conducted to also test if brand extensions differed between stronger and weaker companies within the same type of sector. It was observed that purchase likelihood of brand extensions in general was significantly higher for stronger companies. In particular, there was a higher purchase likelihood when the brand extensions introduced by a higher service brand such as Google (Mean: 13.96) compared to the Adobe (Mean: 12.58), and of Sony (Mean: 15.7) compared to its weaker competitor Dell (Mean: 12.77).

To test the H2c hypothesis, this next set of analysis examined if variations in Greek consumers' responses on levels of purchase likelihood varied based on the extension type between the different companies. No significant differences were found. The results (Table 7) showed that Greek consumers were more likely to purchase product extensions from product companies. To this end, the H2c hypothesis is supported with the results demonstrating the same effect of extension type on service oriented companies.

Table 7. Paired t-tests: purchase likelihood by company based on extension sector (between companies) (N=197)

Variables		Mean	SD	t	df	p-value
Pair 1	GOSERVEXT	7.9746	2.39991	4.15	196	.000
	SOSERVEXT	6.9340	3.29358			
Pair 2	GOSERVEXT	7.9746	2.39991	9.73	196	.000
	DESERVEXT	5.7868	3.15989			
Pair 3	ADSERVEXT	6.8782	2.81312	-.236	196	.814 (ns)
	SOSERVEXT	6.9340	3.29358			
Pair 4	ADSERVEXT	6.8782	2.81312	5.21	196	.000
	DESERVEXT	5.7868	3.15989			
Pair 5	SOPRODEXT	8.7665	2.67381	12.03	196	.000
	GOPRODEXT	5.9848	3.14363			
Pair 6	DEPRODEXT	7.2183	2.77894	5.743	196	.000
	GOPRODEXT	5.9848	3.14363			
Pair 7	ADPRODEXT	5.7005	3.22564	-14.311	196	.000
	SOPRODEXT	8.7665	2.67381			
Pair 8	ADPRODEXT	5.7005	3.22564	-7.274	196	.000
	DEPRODEXT	7.2183	2.77894			

Note: p<0.001, p<0.05

4.3. Exploring the Relationship between Perceptions of Fit and Purchase Likelihood (H3a, H3b)

Pearson correlation analyses were carried out to examine the strength and direction of the relationship, within each company, between all four hypothetical extensions, and purchase likelihood (H3a). The bivariate correlations indicated positive and strong relationships, suggesting that perceptions of fit had a strong influence on purchase likelihood (Table 8).

Table 8 Correlations between perceptions of fit and purchase likelihood (N=197)

	Extensions for service companies	*Google*	*Adobe*	*Extensions for product companies*	*Sony*	*Dell*
Pearson Correlation Sig. (2-tailed)	**Music, podcast, and video streaming service ↑(S)**	.455** .000	.723** .000	**VR headset ↑(P)**	.767** .000	.566** .000
Pearson Correlation Sig. (2-tailed)	**Online travel booking services ↓(S)**	.642** .000	.792** .000	**Home security sensors↓(P)**	.441** .000	.828** .000
Pearson Correlation Sig. (2-tailed)	**Speakers ↓(P)**	.750** .000	.918** .000	**Video surveillance system ↓(S)**	.874** .000	.860** .000
Pearson Correlation Sig. (2-tailed)	**Smartwatch ↑(P)**	.555** .000	.690** .000	**Subscription video on demand ↑(S)**	.717** .000	.738** .000

Note: Correlation is significant at the 0.01 level

For service companies, the correlations indicated strong and significant relationships between perceptions of fit and purchase likelihood. Similarly, product companies had also strong and positive relationships. However, for high fit product extensions, such as Smartwatch for service companies and VR headset for product companies, the correlation coefficients were relatively lower than the rest of the extensions. This might have been because budget was not considered during the selection of the hypothetical extensions in Pretest II.

4.3.1. The Differential Impact of Perceived Image and Category Fit

To address H3b, a series of hierarchical regression analyses were performed. The model that regressed the purchase likelihood of Music, podcast, and video streaming service for Google, indicated that the first model only included the category fit was not significant while as soon as image fit was entered in the second stage, the model was significant (Table 9). Therefore, for the high fit extension for Google, only the image fit was a significant predictor of purchase likelihood. Generally, for low fit extensions for both service and product companies, the beta coefficients are higher.

Table 9. Hierarchical Regression Analyses

	Google				*Adobe*			
	Music, podcast, and video streaming service ↑(S)		*Online travel booking services ↓(S)*		*Music, podcast, and video streaming service ↑(S)*		*Online travel booking services ↓(S)*	
Fchange	(2, 194)= 48.89		(2, 194)= 63.05		(2, 194) = 38.32		(2, 194)= 44.55,	
AdjR²	20.8%		45.1%		51.8%		62.5%	
beta	Image fit	Category fit	Image fit	Category fit	Image fit	Category fit	Image fit	Category fit
	.35	-	.63	.56	.42	.39	.36	.48
	Sony				**Dell**			
	VR headset ↑(P)		Home security sensors↓(P)		VR headset ↑(P)		Home security sensors↓(P)	
Fchange	(2, 194)= 11.48		(2, 194)= 15.96		(2, 194) = 15.82		(2, 194) =35.15	
AdjR²	18.8%		58.8%		31.4%		68.2%	
beta	Image fit	Category fit	Image fit	Category fit	Image fit	Category fit	Image fit	Category fit
	.21	.28	.47	.38	.30	.34	.43	.44

To conclude, type of fit is a significant and positive predictor of purchase likelihood especially when contextualised for sector and brand extension fit. With the exception of Google, both types of fit (category and image) contributed significantly in explaining Greek consumers' purchase likelihood, but their size varied based on the sector company, brand knowledge (weak vs. strong) and brand extension fit.

5. DISCUSSION

The aim of this paper was to examine how Greek consumers' attitudes towards hypothetical brand extensions are affected by 1) levels of brand knowledge, 2) sector categorisation and 3) perceptions of fit. Six hypotheses were developed and tested. Results suggested that all three factors influenced purchase likelihood of brand extensions to some extent.

Consumers exhibited higher levels of purchase likelihood of the hypothetical extensions introduced

by less-known companies, even though levels of brand knowledge for stronger companies were significantly higher. These results challenge the assumption that stronger companies are perform better during brand extensions (Chun et al., 2015). The reason may be that deeper processing is required when evaluating weaker companies (Chun et al., 2015). This relates to the Greek context, as the budgetary constraints due to the crisis restrain consumers' ability to purchase (Mastroianni, 2011; Garefalakis and Dimitras, 2016;Garefalakis et al., 2016).

As literature suggests, service parent companies are more protected against dilution (Lusch, 2017; Pina et al., 2013), hence, brand extensions introduced by service companies were expected to have higher purchase likelihood regardless the sector they were extending to. Although the online environment facilitates the linkages between service companies and products introduced by them (Song et al., 2010), Greek consumers appear to be drawn by extensions introduced by product companies. Findings also indicate that purchase likelihood is greater when extending to the same sector. Those results link to category based judgements. Yet, as Broniarczyk and Alba (1994) note, substitutes or compliments make other links in consumers' minds and are evaluated differently. In addition, the reliability and durability that is linked to product companies (Kim et al., 2001), is clearly reflected on consumers' higher evaluations.

Empirical evidence shows that the higher the perceived fit the more acceptable and successful the brand extension would be (Aaker and Keller, 1990, 1992; Boush and Loken, 1991; Sunde and Brodie, 1993). Hence, there is a direct relationship between high fit and purchase intentions, as shown through the results of this study. However, the two dimensions of fit have a differential impact on purchase likelihood of brand extensions. Category fit seems to have a greater influence of the purchase likelihood on the low fit extensions introduced by the weaker companies, as their image and reputation does not inspire the same amount of trust as stronger companies when it comes to extensions. Greek consumers' evaluations are thus based on strict attribute and category similarity judgements. Surprisingly, in the case of Google, image fit plays the most significant role in purchase likelihood. Therefore, category fit seems to not be a constraint for brands with such high reputation and influence in the market.

6. CONCLUSIONS AND IMPLICATIONS

The main purpose of the current study was to examine how levels of brand knowledge, sector categorisation and perceptions of fit affected the purchase likelihood of Greek consumers towards brand extensions. Findings suggest that there was an effect from all three factors, even though not all hypotheses developed by the literature were supported.

More specifically, the results indicate that the levels of brand knowledge influence brand extension success, but, this hypothesis was not supported, as this assumption had a significant effect only on weaker companies. As far as sector categorization is concerned, in contrast with the newly developed concept of services as a different sector, service

oriented companies seemed to perform poorly compared to product oriented ones. Finally, perceptions of fit based on sector were proved to have an influence on purchase likelihood, with image fit being a more significant predictor of Greek consumers' attitudes.

6.1. Theoretical Contribution

The present paper contributes to the literature of brand extensions, by addressing several gaps that have not being investigated.

The present study focused on hypothetical technological product and service extensions of relatively higher involvement, on which little research has been done. Also, past research is mainly focused on one sector, assessing only the fit between extensions, whereas sector categorization was assessed in combination with perceived fit. This paper is also concentrating on a population that has been severely impacted by an almost ten-year economic crisis. The sample showed a more conservative side when it came to consider the purchase of non-essential products and services. The findings associated with sector categorization, with the product sector being significantly more preferred and trusted by Greek consumers than the services sector, are also an important contribution to the literature of brand extensions. It is clear that theories concerning the service sector are ambivalent, as not much research has been conducted comparing the two sectors and the decision making process required for each. Lastly, the contribution of the current study is the prediction of which dimension of fit, image or category, is a stronger influencer of purchase likelihood of brand extensions, but only under certain conditions. Differences were noticed between sector categorization and between strong and weak companies, which implies that sector and levels of parent brand knowledge both affect perceptions of fit.

6.2. Managerial Contributions

The findings of the current paper could be of interest of managers and marketing practitioners in their effort to create and implement a successful plan to extend to another sector or to unfitting products or services. The results of this paper indicate that Greek consumers are more likely to purchase extensions introduced by stronger and more recognisable companies. However, consumers demonstrated a more significant purchase likelihood attitude towards weaker companies which are evaluated with more caution. Further, managers of weaker companies should use different appeals and tactics in their marketing messages to increase consumers' motivation for information acquisition. Also, managers of stronger companies should consider instead of reinforcing their image, to focus more on advertising and reinforcing the attributes of the extensions, creating links and associations between existing image and extensions to attract the Greek population, as they seem to be more sceptical when assessing non-essential extensions. The study also revealed that Greek consumers demonstrated lower trust and intentions of purchasing intangible extensions. To address this issue, advertising and increased exposure of service oriented companies,

regardless of their strength in the marketplace, can be used to reduce the risks associated with the intangible nature of services. Improving consumers' fit perceptions through advertising could be used as a platform to successfully enter a new product class even when fit is low. Weaker companies should focus more on establishing and reinforcing the closeness to the original and extension category when introducing low fit extensions, and on image and reputation for high fit extensions to further reduce purchase related risks.

6.3. Limitations and Future Research

6.3.1. Limitations

Despite the theoretical contributions and the managerial implications of this study, some limitations exist. First, the size of the sample was limited to 197 people, and tested only four brands. Moreover, the hypothetical extensions may not have been in line with the participants' interests, which may explain the low scores on low fit extensions. The innovativeness of a person, his/her openness to extensions and levels of technology acceptance may have also influenced judgements and attitudes towards extensions. Furthermore, the valuation and non-essentiality of the extensions may have also influenced the participants' responses. Moreover, as income was not included in the demographics section, the researcher could not determine the participants spending power.

6.3.2. Future Research

Generalizations are restricted across other countries with weaker economies, as there are other cross-cultural differences that need to be considered (Sunde and Brodie, 1993; Aaker and Keller, 1993, Pina et al., 2013). Further research should be conducted on other populations, with particular focus on socio-economic and socio-cultural differences. This aspect would add more depth to the brand extension literature.

Moreover, a study comprising the full scales of familiarity, perceptions of fit and extension attitude, tested on the same sample, would be of more value to academics. To conclude, as a limited number of companies, based again on the same sector as the original study were used, results cannot be generalised to other sectors. Yet, further generalisations could be made from replicating this study using different brands in the other categories and different sample.

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