



# The Consumer Motivation Scale: Development of a multi-dimensional and context-sensitive measure of consumption goals



Isak Barbopoulos\*, Lars-Olof Johansson

University of Gothenburg, Department of Psychology, PO Box 500, SE 405 30 Gothenburg, Sweden

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## ABSTRACT

The present research describes the development of the multi-dimensional and context-sensitive Consumer Motivation Scale (CMS). Based on an integrative perspective on consumer motivation, studies in economics, marketing, and psychology are reviewed. Three overarching “master goals” are identified – gain, hedonic, and normative – which make up the foundation for the proposed scale. Across three studies, and a variety of consumption contexts, a multi-dimensional goal structure is explored, confirmed, and validated – consisting of the three gain sub-goals Value for Money, Quality and Safety; the two hedonic sub-goals Stimulation and Comfort; as well as the two normative sub-goals Ethics and Social Acceptance. The resulting 34-item measure is integrative, multi-dimensional, applicable to a wide range of settings, and takes individual and situational variability into account, and should prove useful in standard marketing research, and for development of tailored marketing strategies and segmentation of consumer groups, settings, or products.

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## 1. Introduction

Understanding and predicting consumer behavior continues to be at the forefront of consumer research (MSI, 2014). The key to a better understanding of consumption may be found in the underlying motives that drive it. Like most behaviors, consumption is purposeful and goal-driven (Bagozzi, 1993), performed as a means towards some end (Moskowitz & Grant, 2009). A goal is a cognitive representation of a desired end state. When a goal is activated, tension arises based on the discrepancy between the current and the desired state (Carver & Scheier, 1981). To reduce this discrepancy, cognitive resources – attention, information processing and knowledge structures – become available and accessible, helping us identify feasible means (Janiszewski, 2008), determine their value (Kruglanski et al., 2002), and energize our actions (Gollwitzer & Bargh, 1996). This process constructs and reconstructs the perceived value of alternatives based on whether they are conducive or detrimental to our goals (Förster, Liberman, & Friedman, 2007), independently of pre-existing preferences (Custer & Aarts, 2005).

Goals are thought to be organized in hierarchical goal systems, in which higher-order goals are vertically linked to sub-goals, which are in turn connected to lower-order means and behaviors (Kruglanski et al., 2002). The past decades, it has become increasingly clear that we

not only strive to maximize utility, but also to achieve hedonic (Holbrook & Hirschman, 1982), as well as normative goals (Lindenberg & Steg, 2007). More recently, the authors of the present research found that higher-order utilitarian, hedonic, and normative goals are themselves multi-dimensional, each represented by multiple distinct sub-goals (Barbopoulos & Johansson, 2016). Yet, consumer models rarely integrate multiple goals into a single framework, as most scales are uni- or bi-dimensional (Sánchez-Fernández & Iniesta-Bonillo, 2007), or focus on specific determinants (e.g. Batra, Homer, & Kahle, 2001), while normative determinants are often ignored altogether (Sánchez-Fernández & Iniesta-Bonillo, 2007).

Goals, like all cognitive constructs, are susceptible to environmental cues, thereby connecting evaluations and preferences to the situation at hand (Moskowitz & Grant, 2009). Situations are often perceived in light of the opportunities and obstacles they present in the pursuit of our goals (Morse, Neel, Todd, & Funder, 2015). For instance, situations may be construed as relating to interpersonal or status goals (Bond, 2013), or pleasure, adversity, conflict, or social demand (Ten Berge & De Raad, 2002). Consequently, goal activation may vary from one situation to another, with effects on how consumers evaluate the means under consideration (Barbopoulos & Johansson, 2017a), as consumers often learn to associate situations with the means and actions that can achieve the salient goals (Gutman, 1982). Knowing which goals are active in a situation, and how activation varies across situations, therefore provides valuable knowledge about what information consumers may attend to, what products they prefer, and what pricing strategies may be most effective. To date, the situational variability of goals is often

\* Corresponding author.

E-mail addresses: [isak.barbopoulos@psy.gu.se](mailto:isak.barbopoulos@psy.gu.se) (I. Barbopoulos), [lars-olof.johansson@psy.gu.se](mailto:lars-olof.johansson@psy.gu.se) (L.-O. Johansson).

overlooked in models of consumer behavior, as scales generally consist of situation-independent constructs, such as consumer values (Kahle, Beatty, & Homer, 1986), or personality traits (Aluja, Kuhlman, & Zuckerman, 2010). Furthermore, scales are often designed for specific settings or products, such as sports or tobacco (Sheth, Newman, & Gross, 1991), or travel (Bello & Etzel, 1985), making it hard to assess changes across situations.

Based on these insights, we set out to develop a method of measuring consumption goals that is:

1. *Integrative* – encompassing not only utilitarian, but also hedonic and normative goals;
2. *Multi-dimensional* – taking potential sub-goals of the higher-order goals into account;
3. *Context-sensitive* – measuring not only individual, but also situational variance;
4. *General* – relevant for a wide variety of consumption settings and products.

The present research follows Churchill's (1979) paradigm for developing marketing constructs. First, the domain of the construct – the three master goals and their potential sub-goals – was specified and described. Second, a pool of items was generated based on theories and scales related to the potential sub-goals. Third, data was collected; the dimensions were explored and purified on sample 1A, and then confirmed on sample 1B. And fourth, additional data was collected with the purpose of thoroughly testing the convergent, discriminant, and construct validity (sample 2), as well as criterion-related validity (sample 3). For a detailed step-by-step review of the scale development process, please see the supplementary file, or Barbopoulos and Johansson (2017b).

## 2. Domain of the construct: the three master goals and their potential sub-goals

In the goal-framework developed by Lindenberg and Steg (2007), three higher-order “master goals” have been identified and described in detail. These are the *gain goal* (“to guard or improve one’s resources”; Lindenberg & Steg, 2007, p. 119), the *hedonic goal* (“to feel better right now”; Lindenberg & Steg, 2007, p. 119) and the *normative goal* (“to act appropriately”; Lindenberg & Steg, 2007, p. 119). Although shown to be highly influential in a variety of consumption contexts (Lindenberg & Steg, 2007), these goals are typically studied within separate fields of research; gain in rational choice theories (e.g. Schoemaker, 1982), hedonic in theories on emotions and mood (e.g. Babin, Darden & Griffin, 1994; Holbrook & Hirschman, 1982), and normative in research on moral norms (e.g. Kallgren, Reno, & Cialdini, 2000; Schwartz, 1977; Stern, 2000).

In recent research by the authors of the present article, the dimensionality of the master goals was examined (Barbopoulos & Johansson, 2016). It was found that a distinction should not only be made between the higher-order master goals, but also between the sub-goals that link the master goals to means and behaviors. The gain goal can be represented by at least two distinct sub-goals, one dealing with frugality and the other with financial security, with unique relationships with consumer behaviors. Likewise, the normative goal can be represented by one sub-goal dealing with ideals and moral obligations, and another dealing with social status and fitting in. In the present article, we expand upon this research, as we set out to develop a coherent and integrative measure of multiple consumption goals, applicable to a variety of settings and products. To this end, the scale development follows a top-down approach, in which the highly influential master goals are used as a point of departure. Based on an in-depth review of the literature related to the three master goals, a preliminary structure consisting of nine potential sub-goals was identified. The structure of sub-goals was then explored, confirmed, and validated across three studies, the results of which is formalized as the Consumer Motivation Scale (CMS).

### 2.1. Gain

The gain goal is associated with a sensitivity to changes in personal resources (Lindenberg & Steg, 2007). When the gain goal is active, consumers are sensitive to variations in cost and perceived value, while emotional, social, and ethical considerations are of lesser importance. The gain goal has been studied extensively within rational choice and expectancy-value theories (e.g. Schoemaker, 1982), where means are assumed to be evaluated and ranked according to their perceived value, based on what is received and what is given (Zeithaml, 1988).

According to Lindenberg and Steg (2007), the gain goal may be comprised of sub-goals dealing with saving money, increasing returns or value, and dealing with threats to one’s financial security. In the literature review, the authors of the present research found support for the notion that a distinction should be made between the sub-goal to save money and the sub-goal to increase value through returns (e.g. quality; see Sweeney & Soutar, 2001). Research has shown that as the price of an item goes up, consumers tend to perceive the item to be of higher quality (Dodds, Monroe, & Grewal, 1991). However, for price conscious consumers, the heightened cost may lower the perceived net value of the product. Thus, the assigned value depends on what one values more; a low price, or high quality. Furthermore, it may be argued that the quality of a product is in turn different from its functional value. Whereas the function of a product relates to what it does, quality relates to how well it does it (Sheth et al., 1991).

To account for the distinction between these types of value, we propose three preliminary dimensions to represent the gain goal: *Value for Money, Quality, and Function*. Furthermore, in previous research by the authors of the present research, support was found for an additional sub-goal dealing with safety, likely related to the financial security aspect of the gain goal (Barbopoulos & Johansson, 2016). Thus, we propose a fourth dimension of the gain goal: *Safety*.

### 2.2. Hedonic

When a hedonic goal is active, consumers are motivated to improve the way they feel, and will be especially sensitive to changes in pleasure and mood (Lindenberg & Steg, 2007). The relatively unstable and short-sighted nature of this goal means that utility and norms play a lesser role, thus reducing the effectiveness of many strategies of behavior change such as pricing strategies, incentives, and information campaigns.

In goal-framing theory, the hedonic goal is assumed to be associated with sub-goals that deal with pleasure, excitement, and avoiding effort (Lindenberg & Steg, 2007). In the marketing literature, hedonism is often treated as a uni-dimensional construct, ranging for example from pleasant to unpleasant (Batra & Ahtola, 1990). However, as shown by Bello and Etzel (1985), the motivation to choose an exciting or stimulating alternative is different from choosing a relaxing or comfortable alternative, although both are related to well-being (Ormel, Lindenberg, Steverink, & Verbrugge, 1999). Since the level of stimulation varies as a function of time, activities, or stimulation in the environment, consumers may prefer stimulation-seeking or stimulation-reducing behaviors at different points in time (Helm & Landschulze, 2009).

To account for the distinction between pleasure, excitement, and avoiding effort, we propose three dimensions, one that represents valence (i.e. pleasure-displeasure; Batra & Ahtola, 1990), and two that represent arousal (high/low respectively; Russel, 1983; Watson & Tellegen, 1985): *Pleasure, Stimulation, and Comfort*.

### 2.3. Normative

Consumption has been linked to several environmental issues facing modern society (IPCC, 2013). The last decades have seen a growing interest in ethical consumption among consumers and researchers alike

(e.g. Chatzidakis, Hibbert, & Smith, 2007; Fairtrade International, 2013; OTA, 2011), yet, consumer models and measures often lack ethical dimensions (Sánchez-Fernández & Iniesta-Bonillo, 2007).

Unlike the gain and hedonic goals, the normative goal is not related to self-interest. Instead it focuses primarily on appropriateness, moral obligations, and social norms (Dawes & Messick, 2000; Lindenberg & Steg, 2007). Hence, the normative goal make consumers sensitive to what they “ought” to buy, according to their ideals or the opinions of others. This goal requires external support through institutions, moralization, or social sanctions, to become active (Tangey & Dearing, 2002).

According to Lindenberg and Steg (2007), the normative goal may be associated with sub-goals dealing with behaving the right way, contributing to a clean environment, and showing exemplary behavior. A straightforward interpretation of the normative goal then, is that it's the motivation to act according to one's ideals and personal norms (Schwartz, 1977; Stern, 2000). However, in previous exploratory research by the authors (Barbopoulos & Johansson, 2016), the normative goal was shown to be comprised of two distinct dimensions, one with a focus on moral norms (to take a stand for one's ideals, being considerate and morally righteous), and the other on social norms (to feel good and accepted in the eyes of others, gaining approval and prestige). While both dimensions are normative in nature, in that both are concerned with acting appropriate according to some standard, they differ in the source of this standard. Indeed, norms can be conceptualized as either internal – relating to one's opinions, ideals, and moral obligations – or external – relating to the opinions of others, or complying with what's considered “normal” (Cialdini, Reno, & Kallgren, 1990). Social norms have been shown to be important for the consumption of conspicuous or highly visible products such as clothes (Bearden & Etzel, 1982), and have been related to consumer susceptibility to interpersonal influences (CSII; Bearden, Netemeyer, & Teel, 1989; McGuire, 1968), while moral norms are an important consideration in pro-environmental behavior, as well as in relatively practical contexts, such as in the choice between different modes of transportation (Lindenberg & Steg, 2007). Social norms and influenceability are related to compliance and conformity, suggesting that people motivated by social norms would be sensitive to social sanctions (Burnkrant & Cousineau, 1975). Thus, the distinction between moral and social norms is important, as the motivation to act in line with norms because of fear of social sanctions may lead to different behaviors compared to when following norms due to a sense of personal or moral obligation. A distinction is therefore made between internal and external norms, here conceptualized as *Ethics* and *Social Acceptance*.

#### 2.4. The preliminary goal structure

In summary, the nine proposed sub-goals – Value for Money, Quality, Function, Safety, Pleasure, Stimulation, Comfort, Ethics, and Social Acceptance – provide a broad and nuanced spectrum of consumption goals, taking not only utilitarian goals into account, but also hedonic and normative. Furthermore, the structure accounts for the assumed sub-goals of each master goal (Lindenberg & Steg, 2007), and reflects some of the central findings in each respective line of research, as it accounts for the distinction between value and quality in the marketing literature (Sweeney & Soutar, 2001), the distinction between valence and arousal in the literature on emotions and mood (Russel, 1983), and the distinction between external and internal sources of norms in moral and social psychology (Cialdini et al., 1990).

### 3. Item generation

An in-depth literature review was conducted with the purpose of identifying relevant theories and scales related to each of the three master goals and their nine preliminary sub-dimensions. Based on this review, between six and ten items were adapted and generated for each of the nine preliminary dimensions, for a total of 63 items. Notable

references used in the item generation process can be seen in the footnotes of Table 1 (for further details, see Table 2 in Barbopoulos & Johansson, 2017b).

## 4. Scale development

### 4.1. Factor structure

Nine-hundred eighty-seven respondents were recruited from a general population research panel at the University of Gothenburg, Sweden. The participants were randomly and unknowingly divided into five consumer contexts: food, clothes, entertainment, travel, and accommodations. These contexts were chosen as they represent a large portion of household consumption (US Bureau of Labor Statistics, 2010). The sample was split into two halves ( $N_{\text{sample1A}} = 496$ ;  $N_{\text{sample1B}} = 491$ ), with exploratory analysis performed on the former and confirmatory analysis performed on the latter. The CMS was presented with the statement “When I \_, it is important that what I choose ...” (where the blank was replaced by: “shop for food”, “shop for clothes”, “shop for something that is entertaining or amusing”, “spend money on travel”, or “look for housing”), followed by the list of items, representing the continuation of that statement (e.g. “... is not too expensive”). The participants were then asked to rate the importance of the 63 items in their respective context, on a seven-point scale, ranging from 0 (not at all important) to 6 (extremely important).

#### 4.1.1. Principal component analysis (PCA)

Following recommendations by Costello and Osborne (2005), multiple analyses were performed on sample 1A ( $N = 496$ ) to find the structure with the highest explained variance without signs of

**Table 1**

The nine preliminary sub-goals of the gain, hedonic, and normative master goals.

Goal	Sub-goal	Underlying motive
Gain	Value for Money	To get value for money, pay a reasonable price, avoid wasting money <sup>a</sup>
	Quality	To get something of high quality and reliability, that meets one's highest expectations <sup>b</sup>
	Function	To get something useful and practical, that serves many purposes <sup>c</sup>
	Safety	To feel safe, calm and prepared for the unforeseen <sup>d</sup>
Hedonic	Pleasure	To get something that satisfies immediate needs, that makes one feel good and happy <sup>e</sup>
	Stimulation	To get something exciting, stimulating or unique, avoid dullness <sup>f</sup>
	Comfort	To get something pleasant and comfortable, avoid hassle and discomfort <sup>g</sup>
Normative	Ethics	To act in accordance with one's moral principles and obligations, avoid guilt <sup>h</sup>
	Social Acceptance	To make a good impression, identify with peers, live up to expectations <sup>i</sup>

<sup>a</sup> Zeithaml (1988), Sheth et al. (1991), Sweeney and Soutar (2001), Lindenberg and Steg (2007), Barbopoulos and Johansson (2016).

<sup>b</sup> Zeithaml (1988), Dodds et al. (1991), Sheth et al. (1991), Sweeney and Soutar (2001), Lindenberg and Steg (2007), Barbopoulos and Johansson (2016).

<sup>c</sup> Sheth et al. (1991).

<sup>d</sup> Becker (1973), Schwartz (1992), Rindfleisch and Burroughs (2004), Lindenberg and Steg (2007), Barbopoulos and Johansson (2016).

<sup>e</sup> Batra and Ahtola (1990), Childers, Carr, Peck, and Carson (2001), Lindenberg and Steg (2007).

<sup>f</sup> Russel (1983), Bello and Etzel (1985), Watson and Tellegen (1985), Ormel et al. (1999), Childers et al. (2001), Lindenberg and Steg (2007), Helm and Landschulze (2009), Aluja et al. (2010).

<sup>g</sup> Bello and Etzel (1985), Ormel et al. (1999), Childers et al. (2001), Lindenberg and Steg (2007).

<sup>h</sup> Schwartz (1977), Schwartz (1992), Dawes and Messick (2000), Stern (2000), Bamberg and Schmidt (2003), Thøgersen (2003), Steg, Dreijerink, and Abrahamse (2005), Lindenberg and Steg (2007), Barbopoulos and Johansson (2016).

<sup>i</sup> McGuire (1968), Burnkrant and Cousineau (1975), Bearden et al. (1989), Cialdini et al. (1990), Barbopoulos and Johansson (2016).

**Table 2**

Pattern matrix with item wordings, factor loadings, initial (unrotated) eigenvalue, explained variance, as well as Cronbach's alpha for the seven emergent factors (sample 1A).

Preliminary dimension		When I _, it is important that what I choose...	I	II	III	IV	V	VI	VII
Safety	Safety	makes me feel safe for the future	<b>0.79</b>	0.12	0.10	0.06	0.11	0.03	0.03
	Safety	improves my safety or security	<b>0.75</b>	0.08	0.06	0.07	0.02	0.03	0.12
	Safety	makes me prepared in case something unforeseen would happen	<b>0.74</b>	0.01	0.05	0.06	0.00	0.14	0.12
	Safety	makes me feel calm and safe	<b>0.74</b>	0.02	0.02	0.05	0.08	0.04	0.14
	Safety	takes consideration of needs that may arise in the future	<b>0.63</b>	0.01	0.02	0.01	0.15	0.18	0.02
Social Acceptance	Social Acceptance	<i>improves the way I am perceived by people who are important to me</i>	0.01	<b>0.84</b>	0.02	0.01	0.01	0.03	0.08
	Social Acceptance	is approved by my friends	0.01	<b>0.84</b>	0.03	0.01	0.03	0.01	0.02
	Social Acceptance	is popular among my friends	0.03	<b>0.80</b>	0.09	0.04	0.03	0.00	0.01
	Social Acceptance	is what my friends would expect me to choose	0.01	<b>0.79</b>	0.04	0.06	0.11	0.03	0.08
	Social Acceptance	<i>is similar to what people who I identify with choose</i>	0.06	<b>0.79</b>	0.10	0.05	0.05	0.05	0.02
	Social Acceptance	makes a good impression on people who are important to me	0.06	<b>0.78</b>	0.08	0.03	0.06	0.00	0.10
	Social Acceptance	<i>makes me more alike my role models</i>	0.11	<b>0.71</b>	0.08	0.10	0.02	0.07	0.02
	Social Acceptance	is liked by people who are important to me	0.00	<b>0.68</b>	0.10	0.02	0.14	0.08	0.00
	Social Acceptance	<i>gives me a sense of belonging with people who are like me</i>	0.12	<b>0.64</b>	0.21	0.05	0.13	0.02	0.01
Social Acceptance	<i>makes me feel accepted</i>	0.24	<b>0.57</b>	0.01	0.01	0.12	0.08	0.05	
Stimulation	Stimulation	is exciting	0.05	0.08	<b>0.83</b>	0.03	0.04	0.05	0.03
	Stimulation	is stimulating	0.03	0.02	<b>0.81</b>	0.08	0.03	0.01	0.06
	Stimulation	is not too dull or routine	0.08	0.12	<b>0.76</b>	0.09	0.01	0.09	0.08
	Stimulation	gives a unique experience	0.08	0.08	<b>0.75</b>	0.04	0.02	0.01	0.09
	Stimulation	is interesting	0.01	0.01	<b>0.74</b>	0.01	0.03	0.05	0.14
	Pleasure	<i>is pleasant or enjoyable</i>	0.01	0.14	<b>0.54</b>	0.16	0.17	0.02	0.19
	Pleasure	<i>makes me feel good</i>	0.30	0.16	<b>0.43</b>	0.13	0.06	0.09	0.27
Ethics	Ethics	is not morally wrong	0.07	0.06	0.01	<b>0.87</b>	0.09	0.03	0.00
	Ethics	does not violate my principles	0.11	0.04	0.07	<b>0.86</b>	0.01	0.02	0.03
	Ethics	is consistent with my personal and moral obligations	0.03	0.00	0.02	<b>0.85</b>	0.10	0.02	0.06
	Ethics	is consistent with my ideals and opinions	0.05	0.05	0.01	<b>0.79</b>	0.18	0.00	0.10
	Ethics	gives me a good conscience	0.13	0.10	0.06	<b>0.70</b>	0.01	0.06	0.07
	Ethics	<i>does not make me feel guilt</i>	0.09	0.16	0.05	<b>0.55</b>	0.16	0.06	0.01
	Ethics	<i>makes me feel like a good person in my own eyes</i>	0.15	0.24	0.04	<b>0.50</b>	0.01	0.03	0.12
Quality	Quality	is of consistent and high quality	0.02	0.02	0.07	0.00	<b>0.79</b>	0.09	0.16
	Quality	is first class	0.04	0.18	0.04	0.02	<b>0.79</b>	0.13	0.04
	Quality	is well made (or well performed)	0.07	0.07	0.09	0.05	<b>0.69</b>	0.06	0.01
	Quality	meets even the highest requirements and expectations	0.06	0.09	0.26	0.05	<b>0.65</b>	0.03	0.05
	Function	is reliable	0.25	0.10	0.01	0.09	0.43	0.18	0.24
Value for Money	Value for Money	is reasonably priced	0.03	0.03	0.03	0.01	0.07	<b>0.81</b>	0.07
	Value for Money	is not too expensive	0.02	0.04	0.01	0.02	0.18	<b>0.79</b>	0.05
	Value for Money	<i>provides good return for the money</i>	0.01	0.01	0.14	0.01	0.12	<b>0.78</b>	0.02
	Value for Money	is economical	0.12	0.04	0.12	0.01	0.03	<b>0.77</b>	0.04
	Value for Money	offers value for the money	0.08	0.01	0.08	0.00	0.17	<b>0.75</b>	0.07
	Value for Money	<i>is a good choice considering the price</i>	0.04	0.01	0.04	0.01	0.06	<b>0.73</b>	0.04
	Value for Money	is not a waste of money	0.07	0.00	0.10	0.11	0.07	<b>0.69</b>	0.08
Comfort	Comfort	is smooth and comfortable	0.06	0.06	0.09	0.09	0.10	0.10	<b>0.79</b>
	Comfort	is not too uncomfortable	0.02	0.06	0.03	0.01	0.02	0.04	<b>0.78</b>
	Comfort	is not too complicated or strenuous	0.06	0.07	0.02	0.08	0.07	0.11	<b>0.74</b>
	Pleasure	is enjoyable	0.09	0.06	0.13	0.00	0.14	0.02	<b>0.65</b>
Initial (unrotated) eigenvalue			12.9	5.0	3.9	2.8	1.9	1.8	1.3
Initial (unrotated) explained variance			28.6	11.2	8.7	6.1	4.3	4.0	2.8
Main loading items			5	10	7	7	5	7	4
Cross-loading items (at least half of the main loading)			0	0	1	0	1	0	0
Average main loading			0.73	0.74	0.69	0.73	0.67	0.76	0.74
Cronbach's $\alpha$ :			0.86	0.92	0.89	0.88	0.82	0.89	0.81

Note: For increased readability, main loadings are bolded while non-significant cross loadings (i.e. loadings that do not amount to at least half of the main loading) are colored gray. All item wordings were translated from Swedish. Items in *italics* are not included in the later 34-item version of the CMS. For increased readability, main loadings are bolded while non-significant cross loadings (i.e. loadings that do not amount to at least half of the main loading) are colored gray. All item wordings were translated from Swedish. Items in *italics* are not included in the later 34-item version of the CMS.

over-extraction. Over-extraction was defined as a structure with fewer than three main loading items, while a main-loading item was defined as an item that has a factor loading of 0.5 or greater, and does not have a cross-loading which amounts to more than half of the main

loading. The seven-factor structure had the highest explained variance (59.9%) without signs of over-extraction according to these criteria. Items with low communalities (< 0.50) or cross-loadings (secondary loading that amounts to at least 0.32 and 50% of the main loading;

Costello & Osborne, 2005) were then removed one by one. For details, see Section 3.2. *Factor extraction* and Section 3.3. *Scale purification* in Barbopoulos and Johansson (2017b). A detailed comparison of all factor structures is also provided under 2.1. *Extraction* in the supplementary file.

The result is a 45 item-structure, with seven distinct and reliable factors (Cronbach's alpha ranging between 0.81 and 0.92), explaining a total of 65.72% of the variance. Component correlations vary between  $-0.36$  and  $0.38$  ( $>0.7$  would be regarded as excessive; Hair, Black, Babin, & Anderson, 2010). As can be seen in Table 2, the emergent factors correspond to seven of the preliminary dimensions; only Function and Pleasure did not emerge.

#### 4.1.2. Confirmatory factor analysis (CFA)

CFA was performed on sample 1B ( $N = 491$ ) to confirm the emergent factor structure. A null model was compared to four specified models, with increasing levels of separation between the dimensions. In model 1, all items load on a general factor. In model 2, all items load on factors representing the master goals: Gain (Value for Money, Quality, and Safety items), hedonic (Stimulation and Comfort), and normative (ethics and social acceptance). In models 3a, 3b, and 3c, the master goals were split into the sub-goals one at a time. Finally, in model 4, items load according to the PCA.

The results support the assumption of multi-dimensionality, as each model show a significant improvement in model fit over the previous model (at  $\Delta\text{CMIN } p < 0.001$ ); and the seven-factor structure is the best model in terms of chi-square ( $\text{CMIN} = 2398.28$ ), relative chi-square ( $\text{CMIN}/df = 2.60$ ), root mean square error of approximation ( $\text{RMSEA} = 0.06$ ), and comparative fit index ( $\text{CFI} = 0.85$ ).

A shorter version was then tested, to further improve model fit and parsimony. Items per dimension was reduced to a maximum of five, taking both loadings and maintaining a varied content into account, resulting in a 34-item model (see the non-italic items in Table 2). This model is a significant improvement over the 45-item model, with lower relative CMIN ( $\text{CMIN}/df = 2.52$ ) and higher CFI (0.89). See Section 3.5. *Factor confirmation* in Barbopoulos and Johansson (2017b) for details on all models.

#### 4.1.3. Situational variance/invariance

CFA was further employed on sample 1B to test whether the factor structure is stable across the five contexts. In summary, the factor loadings are invariant across the five contexts, whereas for intercepts, all dimensions except Safety are at least partially invariant. However, Safety is sufficiently invariant across food, clothes, entertainment, and travel, but not housing, suggesting that variations in this dimension may still be interpreted meaningfully, as long as the contexts are not too different from each other. For details pertaining to these analyses, please see Section 3.6. *Invariance testing* in Barbopoulos and Johansson (2017b).

As the factor structure is sufficiently stable across contexts, variations in factor means may be interpreted meaningfully. To test whether the importance of the dimensions vary across contexts, a MANOVA was performed on sample 1B. All dimensions vary significantly ( $F$  ranging from 6.3 to 39.64, all significant at  $p < 0.001$ , and  $\eta^2$  ranging from 0.05 to 0.26), except Ethics ( $F [4, 441] = 1.32, p = 0.261, \eta^2 = 0.012$ ). This shows that the CMS is indeed sensitive to situational variance. As further examination of the situational activation of the sub-goals is not within the scope of the present article, we refer readers interested in this aspect of the CMS to Barbopoulos and Johansson (2017a).

## 5. Scale validation

### 5.1. Convergent and discriminant validity

Two-hundred fifty-five respondents were recruited from a pool of voluntary research participants at the University of Gothenburg, Sweden, to thoroughly test convergent, discriminant, and construct

validity. The questionnaire consisted of three parts: first they were asked to what extent they search for different kinds of information before they decide where to travel for vacation (rated on a six-point scale ranging between 0 [not at all] to 5 [to a very high degree]), then they were asked to fill out the CMS, rated on a six-point scale, from 0 (not at all important) to 5 (extremely important), along with a number of similar scales adapted from the literature (from here on referred to as "reference scales"), and finally, they were asked which of seven hypothetical travel package upgrades they prefer (rated on a five-point scale ranging from 1 [least preferred] to 5 [most preferred]). As can be seen in Table 3, one information type, one upgrade package, and one reference scale was included for each dimension in the CMS.

#### 5.1.1. Convergent validity

Bivariate correlations were calculated for the dimensions of the CMS and the target reference scales on sample 2 ( $N = 255$ ). All dimensions were positively and significantly correlated with their reference scales (ranging from Safety-security  $r = 0.32, p < 0.001$  to Quality-quality  $r = 0.67, p < 0.001$ ). See Section 4.2. *Convergent validity* in Barbopoulos and Johansson (2017b) for details and further evidence.

#### 5.1.2. Discriminant validity

On sample 2 ( $N = 255$ ), bivariate correlations were calculated for each dimension in the CMS and the six *unrelated* reference scales (i.e. the other six scales). The correlations for the unrelated scales were then averaged and compared to the correlation between a dimension and its target reference scale, using Fisher's  $r$ -to- $Z$  transformation. The target correlations are significantly stronger than the average unrelated correlations for all dimensions except Value for Money (target  $r = 0.36$  vs. avg. unrelated  $r = 0.24; Z = 1.48, p = 0.139$ ), and Safety (target  $r = 0.32$  vs. avg. unrelated  $r = 0.41; Z = -1.17, p = 0.242$ ). The relatively high correlation between Safety and the unrelated scales can likely be explained by a high overlap between Safety, Quality and Comfort in this context ( $r > 0.7$ ). Excessive correlations were not observed in the contexts in previous studies, and the overlap is therefore concluded to be contextual; indeed, a high correlation between Safety, Comfort, and Quality might be expected in a travel context, as few vacation goers would consider a vacation package that is unsafe and uncomfortable to be of high quality. See Section 4.3. *Discriminant validity* in Barbopoulos and Johansson (2017b) for details and further evidence.

### 5.2. Construct validity

A series of regression analyses were performed on sample 2 ( $N = 255$ ) with the dimensions of the CMS as independent variables, and each of the information search behaviors and preferences as dependent variables. As can be seen in Table 4, all dimensions in the CMS were significantly related to their target constructs. The CMS generally performed better and more consistently than the bundle of reference scales, as the relationships between the reference scales and the target information search behaviors and preferences were non-significant in five out of 14 cases. However, note that due to limitations in size and format, the reference scales could not be included in full or exactly as intended by their original authors. The comparison between the CMS and the bundle should therefore not be considered as a test of the specific scales, but rather the principle of bundling different scales to represent a multi-dimensional structure. The difficulty in accomplishing this is in itself an advantage of the CMS. See Section 4.4. *Construct validity* in Barbopoulos and Johansson (2017b) for details.

### 5.3. Criterion-related validity

Two-hundred sixty-one participants were recruited in a class room environment at the University of Gothenburg, Sweden. The participants made a hypothetical choice between a regular chocolate bar at the cost of 20 SEK (approximately €2), and a "green" carbon-compensated

**Table 3**

The hypothesized related reference scales, information search behaviors, and upgrade preferences.

	Reference scale	Information type	Upgrade preference
VfM	Price; Sweeney & Soutar, 2001	Rebates and deals	600 SEK [approx. €60] discount
Qua.	Quality; Sweeney & Soutar, 2001	Classifications, quality standards	Upgrade to 4-star hotel
Saf.	Family security; Schwartz, 1992	Insurance, safety, unrest	Extended travel insurance
Sti.	Stimulation-seeking; Aluja et al., 2010	Activities, sights, experiences	Upgrade to a "adventure hotel"
Com.	Restful experience; Bello & Etzel, 1985	Availability, vicinity	1st class seat and a more comfy room
Eth.	Universalism; Schwartz, 1992	Environmental standards, impact	Environmentally certified flight and hotel
Soc.	CSII; Bearden et al., 1989	Opinions of friends	A more popular and trendy destination

VfM = Value for Money; Qua. = Quality; Saf. = Safety; Sti. = Stimulation; Con. = Convenience; Eth. = Ethics; Soc. = Social Acceptance.

chocolate bar at the cost of 50 SEK (approximately €5), representing a trade off in price versus environmental friendliness. They were then asked to rate the importance of the items in the CMS pertaining to their choice.

Binary logistic regression was performed with purchase choice (regular vs. green chocolate) as the dependent variable and the seven dimensions of CMS as independent variables. Cox & Snell  $R^2$  as well as Nagelkerke  $R^2$  are satisfactory (0.30 and 0.40 respectively), suggesting that the dimensions explain choice well. Three of the dimensions are significantly related to the choice of green chocolate. As may be expected, Ethics increase the likelihood of choosing green over regular by a factor of 3.32 ( $B_{Ethics} = 1.20, p < 0.001$ ), while Value for Money decrease the likelihood by a factor of 3.19 ( $B_{VfM} = -1.16, p < 0.001$ ). Finally, Stimulation increase the likelihood of choosing the green over regular chocolate by a factor of 1.84 ( $B_{Stimulation} = 0.61, p = 0.002$ ). It may be noted that while the relationship between Value for Money and saving money in Study 2 was relatively weak compared to the other dimensions, the relationship appears to be stronger in an actual choice context. This may be because the trade-off, or goal conflict, is more salient if a choice has to be made. Indeed, price conscious consumers may appreciate expensive products, even if they would not be prepared to pay for them given a choice.

## 6. Discussion

We set out to create an integrative, multi-dimensional, and context-sensitive measure of consumption goals, applicable to a wide variety of products and settings. The proposed scale, formalized as the Consumer Motivation Scale (CMS), was developed and validated across three studies. The present research demonstrates that consumer motivation is indeed multi-dimensional, varies in importance across contexts, and is related to a variety of consumption determinants, such as search for information, preferences, as well as choice.

### 6.1. Multi-dimensionality

The aim of the present research was not only to integrate the gain, hedonic, and normative master goals into a single scale, but also to thoroughly examine the dimensionality of each master goal. As shown, the three higher-order goals can be divided into at least seven distinct sub-goals, each with varying relationships with consumer behaviors. While sub-goals that share a higher-order goal may be conceptually related to each other – that is, both Value for Money and Quality are related to utility – each sub-goal is linked to distinct, sometimes even opposing, preferences and behaviors. The multi-dimensional approach

**Table 4**

Standardized regression coefficients for the dimensions in the CMS and the reference scales (Ref.) for information search behaviors (Info.) and upgrade preferences (Pref.). The hypothesized relations are identified in the bolded diagonal (CMS), and in the bolded column (reference scales).

			VfM	Qua.	Saf.	Sti.	Com.	Eth.	Soc.	Ref.
			$\beta$	$\beta$	$\beta$	$\beta$	$\beta$	$\beta$	$\beta$	$\beta$
VfM	Info.	Deals	<b>0.24***</b>	0.01	0.33***	-0.01	0.00	-0.01	0.03	<b>0.17***</b>
	Pref.	Discount	<b>0.15*</b>	-0.11	0.23*	-0.03	-0.04	-0.06	0.01	<b>0.12</b>
Qua.	Info.	Classification	-0.04	<b>0.41***</b>	0.06	0.04	0.19*	-0.09	0.06	<b>0.62***</b>
	Pref.	4–star	-0.12	<b>0.34***</b>	0.06	-0.01	0.23*	-0.15*	-0.01	<b>0.31***</b>
Saf.	Info.	Safety	-0.12	0.09	<b>0.43***</b>	0.14*	-0.12	0.06	0.11	<b>-0.01</b>
	Pref.	Travel insurance	0.01	0.07	<b>0.30***</b>	0.05	-0.11	0.04	0.04	<b>0.04</b>
Sti.	Info.	Activities	-0.01	-0.06	0.22*	<b>0.30***</b>	-0.09	0.13*	-0.01	<b>0.10</b>
	Pref.	Adventure	0.10	0.15	-0.09	<b>0.28***</b>	-0.28**	-0.10	0.07	<b>0.51***</b>
Com.	Info.	Availability	-0.06	0.16	0.20*	0.08	<b>0.25**</b>	-0.09	0.00	<b>-0.03</b>
	Pref.	Comfort	0.03	0.21*	0.04	-0.02	<b>0.19*</b>	-0.20**	0.02	<b>0.13*</b>
Eth.	Info.	Envir. impact	-0.09	-0.07	-0.01	0.08	-0.08	<b>0.54***</b>	-0.02	<b>0.41***</b>
	Pref.	Envir. certificate	-0.07	-0.23*	0.10	0.01	-0.11	<b>0.58***</b>	-0.13*	<b>0.54***</b>
Soc.	Info.	Friends	0.06	0.18	0.01	0.14*	0.02	-0.07	<b>0.22***</b>	<b>0.14*</b>
	Pref.	Popular	-0.07	0.22*	-0.03	0.08	0.08	-0.18**	<b>0.25***</b>	<b>0.36***</b>

For increased readability, non-significant relations are colored gray.

VfM = Value for Money; Qua. = Quality; Saf. = Safety; Sti. = Stimulation; Con. = Convenience; Eth. = Ethics; Soc. = Social Acceptance; Ref. = Corresponding reference scales; Envir. Environmental.

\*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$  (one-tailed  $p$  are in bold, rest are two-tailed).

taken in the development of the CMS thereby adds nuance that would not be achievable using uni- or bi-dimensional measures.

## 6.2. Situational variance

Consumption goals are context-dependent, and it was indeed shown that while the structure of the CMS was sufficiently invariant, the rated importance of the dimensions fluctuates across the contexts. According to the cognitive-affective model of personality (Mischel & Shoda, 1995), individuals have stable *patterns of activation* across situations. Similarly, means-end theory, states that consumers learn to associate situations with means that produce desirable consequences (Gutman, 1982). However, when situation-invariant constructs are used, such as values or personality traits, the information about these patterns are lost, as the aggregated situations cancel each other out, or worse, lead to misleading generalizations. Multi-dimensional measures offer richer accounts, as chronically activated goals are indicators of the stable traits and values of consumers – which can be used to study between group variance – while situational activation is an indicator of situational effects – which can be used to study within group variance (Moskowitz & Grant, 2009).

## 6.3. The seven dimensions of the CMS

### 6.3.1. Value for Money, Quality, and Safety

Sweeney and Soutar (2001) found that consumers make a distinction between value in terms of quality (i.e. what one gets) and value in terms of price (i.e. what one gets in relation to what one pays). This was substantiated in the present research, as Value for Money and Quality emerged as distinct dimensions with different relationships to consumer behaviors. Concerns about safety are important in many consumer settings (Rindfleisch & Burroughs, 2004), and have been shown to be related to seeking harmony and stability (Bardi & Schwartz, 2003), being conventional, realizing life's limitations, and being private (Chulef, Read, & Walsh, 2001). The Safety dimension was shown to be related to attention to insurances, safety, and unrest.

### 6.3.2. Stimulation and Comfort

Products may be purchased for their sensory or aesthetic qualities (Holbrook & Hirschman, 1982). Although most hedonic scales are uni- or bi-dimensional, the results of the present research suggest at least two distinct dimensions: Stimulation and Comfort. Stimulation was shown to be related to sensation seeking (Aluja et al., 2010), search for information about activities and sights, as well as the preference for adventurous experiences. Comfort, in contrast, was related to a restful travel experience (Bello & Etzel, 1985).

### 6.3.3. Ethics and Social Acceptance

An important distinction should be made between personal norms, which are intrinsic moral obligations (Schwartz, 1977), and social norms, which are external regulations based on expectations from others (Cialdini et al., 1990). In the CMS, this is represented by the two dimensions Ethics and Social Acceptance. The former deals with moral obligations and guilt, whereas the latter deals with fitting in and conforming to expectations. Consumers motivated by Ethics may strive to live up to their own moral principles, whereas for Social Acceptance, the opinions of others matter more.

## 6.4. Theoretical contributions

The main theoretical contribution lies in the demonstration of the multi-dimensional and context-variant nature of consumption goals. The present research thereby challenges the common practice of measuring determinants of consumption using uni- or bi-dimensional measures, or with constructs that are stable across situations (such as values and traits). We argue that a multi-dimensional and context-sensitive

measure offers a richer and more psychologically accurate view on the drivers of consumption. The present research provides a significant contribution in this regard, as a wide range of established scales and theoretical constructs, from economics and marketing, as well as social and environmental psychology, and sociology, was integrated into the CMS, in a way that is easily applicable to, and comparable across, different consumption contexts. The CMS should therefore prove useful in standard marketing research, as well as in the mapping and segmentation of consumer groups, settings, and even products, as it takes both personal and situational variance into account.

## 6.5. Managerial implications

Knowing what consumers strive towards tells us what information and knowledge they may attend to, what incentives they may respond to, what attributes they may prefer, and what price they may be willing to pay. Consumers motivated by Value for Money and Ethics, but not Social Acceptance, may for instance avoid buying expensive pro-environmental products, in favor of relatively “cheap” pro-environmental behaviors, such as buying second hand, reusing/recycling, or simply reducing their consumption. Conversely, consumers motivated by Ethics and Social Acceptance, but not Value for Money, may instead prefer pro-environmental behaviors that are noticeable, while paying less attention to their costs, such as buying more expensive organic products. In this way, the *pattern* of goal activation can be analyzed to make conclusions about the preferences of the target group.

Furthermore, since the CMS is easily applicable to different levels of abstraction – from higher-order consumption settings and contexts, to product categories, down to specific products – it may be used to categorize consumption contexts and products. This categorization would not only be based on the utilitarian-hedonic polarity commonly applied (e.g. Wakefield & Inman, 2003), but on the much wider range of goals which emerged in the present research. This width is important, as each sub-goal is linked to distinct preferences and behaviors. The unique profile of a context, product category, or specific product, could be used to develop tailored marketing strategies or interventions specifically targeted at those contexts or products. Since each dimension can be linked to established constructs in the literature, a wealth of knowledge can be referenced once the pattern of activation is known.

## 6.6. Limitations

The top-down approach in the scale development may limit the emergent structure to sub-goals that are related to the three higher-order master goals in goal-framing theory (Lindenberg & Steg, 2007). However, it should be noted that the purpose of the present research was not to compile an exhaustive list of consumption goals, which would likely be unfeasible, or at least very impractical, as a complete list of human motives likely number in the hundreds (Chulef et al., 2001). Additional dimensions may certainly be considered; however, each proposed addition should be evaluated with this in mind.

## 6.7. Future research

Additional goals and sub-goals may be identified and incorporated, for example goals relating to self-esteem. It is also important to further investigate when and how the dimensions vary, for instance across demographics, contexts, and products. A few studies have already been conducted to this end (Barbopoulos & Johansson, 2017a), and more are planned.

Furthermore, following recommendations of Churchill (1979), it is important to develop scale norms, to better distinguish between high and low ratings of a given sub-goal.

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## Appendix A. Supplementary data

Supplementary data to this article can be found online at <http://dx.doi.org/10.1016/j.jbusres.2017.03.012>.

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**Isak Barbopoulos** is a Ph.D. candidate at the University of Gothenburg, Department of Psychology, where he is conducting research on how economic, hedonic, and normative goals affect our choices as consumers in various purchase situations. He is particularly interested in the interaction between individual and situational factors for the activation of consumption goals, and how this in turn affects how we evaluate and select products and services.

**Lars-Olof Johansson**, Ph.D., is a senior lecturer and associate professor at the University of Gothenburg, Department of Psychology. His research interests include consumer attitudes and behavior, political decision making, fairness in resource management tasks, as well as effects of resource scarcity.