

Exploring the Formation of Consumer Expectations

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Acknowledgements: The data collection for this study was funded through a research grant provided by the Indian Institute of Management Bangalore.

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ABSTRACT

Consumer expectations are important because they influence decisions before purchase and help determine satisfaction after purchase. Yet, how consumer expectations are formed has received little attention in marketing literature. We track the behaviour of American and Indian consumers, using an online simulation, to understand *how* consumers use information available to them to form expectations. The motivating influence of regulatory focus is also investigated. We find that consumers use detailed reviews most often to form their expectations, even though such information is more difficult to process than other simpler forms of information like social-media based indicators. Further, we find that across countries and regulatory foci, consumers prefer to separate (vs. aggregate) available information into smaller pieces that are easier to process, that is, they form expectations within a ‘narrow frame’. Lastly, we find that promotion-focussed consumers use less information and take less time to form expectations, but still form higher expectations than prevention-focussed consumers. Theoretical and managerial implications of these findings are discussed.

Keywords: Expectations, Regulatory focus, Online simulation, Narrow framing.

INTRODUCTION

Existing research has extensively studied which sources of information consumers use to form expectations of products and services (Oliver, 2011). However, little work has been done on *how* consumers use this available information to form their expectations. This question assumes importance today as consumers have easy access to a lot of information.

However, there are two sides when information is used to form expectations. On the one hand, it can provide consumers with product knowledge and other consumers' favourable experiences, and thus encourage purchase (e.g., Bansal & Voyer, 2000; Kim & Lennon, 2008). Yet, since large volumes of information are difficult to gather and process, consumers might not peruse all of it, resulting in the formation of expectations that firms might not want consumers to have towards their products (e.g., Krishnamurti, Schwartz, Davis, Fischhoff, de Bruin, Wang, & Lave, 2012; Patterson, Sadler, & Cooper, 2012).

Understanding *how* consumers use information to form expectations is important to both marketers and researchers for several reasons. First, expectations are closely intertwined with consumer product choice (Bridges, Yim, & Briesch, 1995; Erdem & Keane, 1996; Meyer & Sathi, 1985). Thus, an improved knowledge of expectation formation helps in understanding consumers' product choices much better. Second, the level of expectations is one of the primary components of the widely accepted expectancy-disconfirmation model of consumer satisfaction (Oliver, 1980a, 1980b; Spreng, MacKenzie, & Olshavsky, 1996; Fournier & Mick, 1999). Therefore, a better understanding of the formation of expectations can improve the prediction and generation of consumer satisfaction. Third, from a solely practitioners' perspective, marketers can be aware of the importance of the different types of information they make

available to consumers on their websites. This knowledge can help marketers maximize the utilization of website real-estate.

This study contributes to existing research on consumer expectations in two ways. First, the analysis of consumers' behavioural data provides a rich understanding of *how* consumers form their expectations from information available to them. There is evidence for the formation of expectations within a 'narrow frame', for the preference of complex detailed reviews in the formation of expectations over simpler forms of word-of-mouth, and for the ineffectiveness of social-media types of word-of-mouth information in expectation formation. Second, when examining the role of regulatory focus in the formation of expectations, we found that although prevention-focused consumers access more information and spend more time with the information before they form an expectation, it is promotion-focused consumers who form high expectations. These findings and their implications are discussed in detail.

THEORETICAL BACKGROUND

Expectations

Human beings, adapt themselves to their environments over time. This includes learning the consequences of their actions, and therefore expecting certain outcomes to follow particular actions. Subsequently, this learning enables people to achieve or avoid specific outcomes. An expectation is thus nothing more than an "anticipation of future consequences based on prior experience, current circumstances, or other sources of information" (Tyron, 1994, p.313). Similar definitions have been put forth by other researchers (Oliver, 1980a; Olson & Dover, 1979).

The focus of this study is on the information used to form expectations, or more specifically, *how* different types of information help a consumer anticipate future consequences. Oliver (2011) separated the sources of information used to form expectations into internal and external sources. Internal sources are comprised of the consumer's own experiences with brands (Clow & Beisel, 1995; John, 1992), as well as their current circumstances like income level, and so on. External sources are those that are not based on the consumer's own experiences. They include promotional claims (e.g., Bebko, Sciulli, & Garg, 2006; Kopalle & Lehmann, 1995), word-of-mouth (e.g., Bagozzi & Dholakia, 2006; Herr, Kardes, & Kim, 1991; Sweeney, Johnson, & Armstrong, 1992), third-party information like consumer reports or magazine and newspaper reports on products, and finally, product cues of price, scarcity, brand name, store image and advertising repetition (e.g., Kirmani, 1997; Rao, 2005; Teas & Agarwal, 2000).

Research has so far neglected to understand how consumers use different sources of external information to form their expectations. For example, do consumers access the available information holistically or separately? If they access it separately, then how much of the information do they use – do they use all the available information or only some pieces? Or what perceptions are they forming about the product or service based on the information they access?

In this study, we focus on one external source of information that has today become almost ubiquitous for products and services, namely, online word-of-mouth types of information (like customer reviews, social-media based rankings, ranking of product features by consumers, and so forth). By tracking consumer behaviour in a simulation, an understanding of *how* consumers form expectations from available word-of-mouth types of information can be developed to answer the following questions:

- (i) Can any one type of information be sufficient for consumers to form an expectation?
- (ii) How much time do consumers spend with the information before forming an expectation?
- (iii) Other than functional, symbolic or experiential expectations, can consumers form expectations of being satisfied with the product/service in future?

Processing different types of online word-of-mouth information simultaneously to form an expectation would require significant cognitive effort, which consumers are unlikely to expend. Therefore, it is possible that consumers use *narrow framing* while forming expectations from available information. The phenomenon of separating and processing information in separate pieces rather than in aggregate is known as narrow framing (Kahneman & Lovallo, 1993; Kahneman, 2003).

Narrow framing is the phenomenon of individuals considering information, decisions, problems, and so on, separately or as they come, instead of considering them all together (Kahneman & Tversky, 1979; Kahneman & Lovallo, 1993; Kahneman, 2003). Individuals prefer to segregate rather than consider things in aggregate (Langer & Weber, 2001; Redelmeier & Tversky, 1992), because such separation is cognitively simpler and is more easily accessible (Kahneman, 2003). For example, when consumers are faced with too many choices, they often breakdown the problem of too many choices into many separate sequential choice-making decisions, that is, into waves of decisions (Lye, Shao, Rundle-Thiele, & Fausnaugh, 2005). A narrow frame allows individuals to process less information in order to quickly come to a conclusion.

The concept of narrow framing has been used as the underlying motivation for several consumer behaviour phenomena like choice bracketing (Read, Loewenstein, & Rabin, 1999), decision waves (Lye et al., 2005), and consumer preference for single vs. multiple alternatives (Gourville, 1998). The case of online word-of-mouth information should be no different:

- (iv) Do consumers access different types of information separately or all together?
- (v) If information is accessed separately, then how many and which types of information do consumers access to form expectations?

So far, we have implicitly assumed that consumers will indeed be motivated to take time and effort to go through available information when they form expectations; this allows for the investigation of how consumers use information to form their expectations. Yet, the assumption need not be always true. Motivation is often a crucial starting point in frameworks that deal with how information is processed (e.g., De Dreu, Nijstad, & van Knippenberg, 2008; MacInnis & Jaworski, 1989; Van Kleef, De Dreu, & Manstead, 2004), and thus deserves consideration. Therefore, we elaborate on what motivates consumers to seek out and peruse information that helps them form expectations.

Goal-directed consumer behaviour

Like other individual behaviour, consumer behaviour is also goal-directed (Bagozzi & Dholakia, 1999; Baumgartner & Pieters, 2008; Kopetz, Kruglanski, Arens, Etkin, & Johnson, 2012; Paulssen & Bagozzi, 2006). Goals are desirable or undesirable states that guide the behaviour of consumers in such a way that they are attained or avoided, respectively (Baumgartner & Pieters, 2008). Once goals are set, consumers strive to achieve them (Bagozzi & Dholakia, 1999; Baumgartner & Pieters, 2008).

It is possible that consumers form expectations about a product or service when they come across information about it while reading newspapers and magazines, or browsing websites, or even while talking to other consumers. In such cases, no goal was set and therefore it is not goal-striving behaviour that motivates consumers to form an expectation, but rather a mere coincidence. It is thus likely that only weak expectations are formed, which can be changed by persuasive marketing communication from the firm at a later point in time (Dawar & Pillutla, 2000).

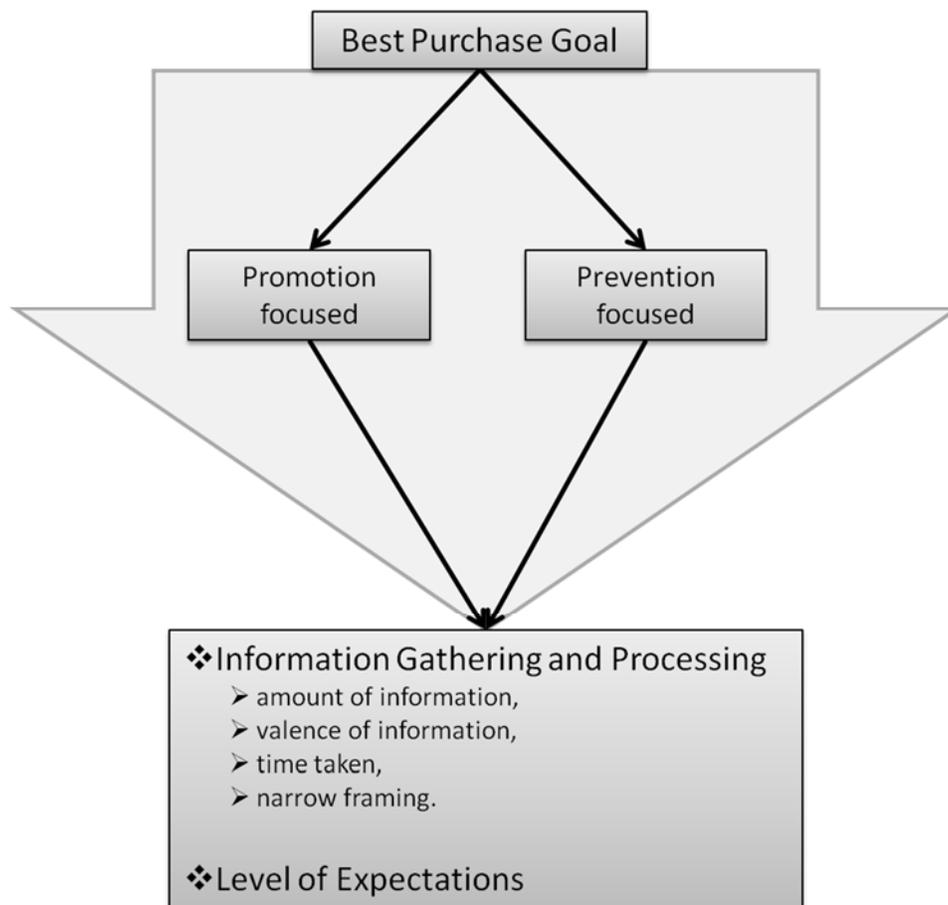
However, when consumers want to make a purchase, they are likely to set a goal of trying to find the best¹ product or service from among others in the category or from among available substitutes. Crucial to this study is not goal-setting by consumers, but rather goal-striving that consumers undertake, that is, working towards the chosen goal (Bagozzi, 1993; Heckhausen, 1991). Striving for goals motivates consumers into gathering and processing information (MacInnis & Jaworski, 1989; Peterman, 1997). This is because, as a means to achieving goals, consumers like to seek out information from various sources (Bansal & Voyer, 2000; Kiel & Layton, 1981; Newman & Staelin, 1972).

Consumers can strive for a single goal through different means – the case of equifinality in goal structures (Baumgartner & Pieters, 2008). There are thus multiple paths to achieve the goal of making the ‘best purchase’. Consumers’ regulatory focus has a strong influence on the way consumers go about achieving their goals (Förster, Higgins, & Idson, 1998; Higgins, 1998; Shah, Higgins, & Friedman, 1998). For example, Aaker and Lee (2001) found that goals associated with regulatory focus determine the information processed and the persuasiveness of

¹ Here, the word ‘best’ is used to broadly include the various ways in which consumers might define an ideal product for themselves – lowest price, highest non-monetary value, high ease of use or convenience, and so on.

an advertising message. Therefore, we propose that a consumer's regulatory focus represents two different ways to strive for the 'best purchase' goal. It is this goal of making the 'best purchase' that drives consumers' information gathering and processing behaviour and thus also the expectations they form about the product or service. This is represented by the large arrow from the goal to the behaviour in Figure 1. However, the paths along which consumers are driven (by the goal) depend on their regulatory focus (Figure 1).

FIGURE 1 Why are consumers motivated to use information to form expectations?



Regulatory focus

Higgins (1997) asserted that there are two types of self-regulation foci that individuals can adopt, namely, a promotion focus or a prevention focus. Broadly, a promotion focus is described as the regulatory state that is concerned with advancement and accomplishment, and in which individuals focus on the presence and absence of positive outcomes; while a prevention focus is the regulatory state concerned with protection and safety, and in which individuals focus on the presence and absence of negative outcomes (Higgins, 1997; Higgins, 2002; Shah et al., 1998).

The consumer's regulatory focus is a trait², which has received significant support from scholars over the years for its ability to influence how people might gather or process information. Kirmani and Zhu (2007) determined that prevention-focused consumers are more sensitive to an advertiser's manipulative intentions, which makes them more vigilant against persuasion. Forster, Higgins, and Bianco (2003) found that promotion-focused consumers trade speed for accuracy in different tasks. As a result, they were quicker in achieving their goal than their prevention-focused counterparts. Further, both underlying mechanisms for regulatory focus – eagerness vs. vigilance and relational vs. item-specific elaboration – suggest that prevention-focused consumers will spend more time and effort to gather and process information (Zhu & Meyers-Levy, 2007). When these findings are applied to word-of-mouth types of communication between consumers, it is expected that there will be similar differences in the way prevention- and promotion-focused consumers will use information to form their expectations.

² In this study, we consider regulatory focus as a consumer trait rather than a situational factor. In other words, it is a consumer's 'chronic' regulatory focus (Higgins, 1997), rather than an induced regulatory focus (Higgins, Roney, Crowe, & Hymes, 1994). The reason for considering regulatory focus as a trait is that, unlike in advertising messages or other marketing communications, most of the time firms do not have control over word-of-mouth communications. Therefore, they cannot use the content of word-of-mouth communications to induce a regulatory focus in consumers.

H1a: Prevention (vs. promotion) focused consumers will use more information to form an expectation.

H1b: Prevention (vs. promotion) focused consumers will spend more time perusing information before forming an expectation.

Given the vigilant or risk-averse behaviour of prevention-focused consumers (Zhu & Meyers-Levy, 2007; Zhou & Pham, 2004), we anticipate that prevention-focused consumers will have lower expectations of a product or service. At the same time, the eager or risk-seeking behaviour of promotion-focused consumers (Zhu & Meyers-Levy, 2007; Zhou & Pham, 2004) might result in them forming higher expectations when using word-of-mouth types of information to form expectations. Promotion-focussed consumers might also form higher expectations simply because they are more optimistic (Grant & Higgins, 2003; Trevelyan, 2008).

H2: Prevention (vs. promotion) focused consumers will form lower (vs. higher) expectations.

METHODOLOGY

In the digital world, consumers are surrounded by volumes of information. Excessively detailed product websites, online reviews, blogs, targeted advertising, and word-of-mouth via social networks are some of the digital places where information is available. In this information-filled age, online word-of-mouth types of information, in particular, have had a significant impact on consumer decision making (Chevalier & Mayzlin, 2006; Senecal & Nantel, 2004; Zhu & Zhang, 2010). We test our hypotheses in this context.

Most online services today have some form of a review or recommendation system whereby consumers are able to peruse feedback provided by other consumers on products or services. Researchers studying these review systems are concerned with either the reviews' impact on consumers' pre-purchase behaviour like product choice (e.g., Chevalier & Mayzlin, 2006; Zhu & Zhang, 2010) or the reviews' impact on sales (e.g., Chevalier & Mayzlin, 2006; Elberse & Eliashberg, 2003; Liu, 2006; Resnick & Zeckhauser, 2002). However, we are not aware of any study that has investigated the impact of online word-of-mouth types of information on the formation of consumer expectations.

To test our hypotheses across countries, we had respondents from India and the United States. We chose consumers from two different countries for a couple of reasons. First, since it is well known that culture has an influence on consumption behaviour (Lambin, Chumpitaz, & Schuiling, 2007; McCracken, 1986), we wanted to check if culture could also affect the formation of expectations. Thus, cultural differences between Indians and Americans (Hofstede, 1984) suit this purpose. Second, there are differences in consumer behaviour between developing and developed nations (De Mooji, 2003; De Mooji & Hofstede, 2011). Therefore, we chose one developing (India) and one developed (USA) nation in order to obtain a developing vs. developed nation contrast in the formation of expectations. In both countries, the survey was administered in English.

The respondents from both countries were randomly assigned to one of two simulations. The simulations focused on either a product (smartphones) or a service (hotel services). For this research, smartphones and hotel services were chosen because both of them are widely purchased online by consumers in both countries. This provided two benefits. First, these categories would make the simulation more realistic to a respondent; and second, using these

categories would help lower the number of responses rejected because of a lack of awareness of the product or service. Furthermore, all brand-identifying information was removed so that prior brand experience would not influence the behaviour of respondents in the simulation.

Responses were collected by conducting the online simulation through Amazon's Mechanical Turk platform (MTurk). Researchers have found the internet to be a good place for data collection (Banister, 2003), and Mturk, in particular, as a valid source for collecting data (Buhrmester, Kwang, & Gosling, 2011; Paolacci, Chandler, & Ipeirotis, 2010; Sprouse, 2011). MTurk has been used for data collection in several recent studies (e.g., Erat & Bhaskaran, 2012; Ward & Broniarczyk, 2011; Ghose, Ipeirotis, & Li, 2012; Sussman & Olivola, 2011; Loewenstein, Raghunathan, & Heath, 2011). There is also no difference in the indicators of data quality between the data obtained in traditional laboratories and that on MTurk (Sprouse, 2011). Furthermore, Buhrmester and colleagues (2011) found that MTurk has a slightly more demographically diverse sample than usual Internet samples. An Internet Protocol (IP) address filter was used to prevent duplicate responses.

Sample

We collected 1165 responses. The details of the sample are listed in Table 1. Given the fact that the survey was conducted online, it is not surprising that there were more educated respondents in the Indian sample. Furthermore, although a wide range of ages took part in the survey, the relatively young average age (33 in USA and 31 in India) is also probably a result of the online aspect of the survey. Among respondents who took part in the smartphone simulation, the average amount of experience they had with mobile phones was 9.5 and 8.3 years in USA and India respectively. Among respondents who took part in the hotel services simulation,

vacationing once a year was common to both Americans (40%) and Indians (45%). However, going even less than once a year was equally common for the American sample (42%).

TABLE 1 Descriptive statistics of the sample.

		INDIA (n=582)		USA (n=583)	
SMART PHONE (n=585)	<i>N</i>		304	<i>N</i>	281
	<i>Gender</i>			<i>Gender</i>	
		Male	61%	Male	51%
		Female	39%	Female	49%
	<i>Age</i>			<i>Age</i>	
		Average	32	Average	33
		Median	29	Median	29
		Range	19 – 69	Range	18 – 69
	<i>Marital Status</i>			<i>Marital Status</i>	
		Married	59%	Married	30%
		Single	37%	Single	42%
		In a relationship	0%	In a relationship	20%
		Other*	4%	Other*	8%
<i>Employment</i>			<i>Employment</i>		
	Full-time	63%	Full-time	53%	
	Part-time	14%	Part-time	11%	
	Student	11%	Student	16%	
	Other*	12%	Other*	20%	
<i>Education</i>			<i>Education</i>		
	Lower than a Bachelors	11%	Lower than a Bachelors	62%	
	Bachelors Degree	62%	Bachelors Degree	30%	
	Masters or higher	27%	Masters or higher	8%	
HOTEL SERVICES (n=580)	<i>N</i>		278	<i>N</i>	302
	<i>Gender</i>			<i>Gender</i>	
		Male	61%	Male	51%
		Female	39%	Female	49%
	<i>Age</i>			<i>Age</i>	
	Average	30	Average	33	
	Median	28	Median	29	
	Range	18 – 68	Range	18 – 70	

<i>Marital Status</i>		<i>Marital Status</i>	
Married	58%	Married	30%
Single	37%	Single	40%
In a relationship	5%	In a relationship	22%
Other*	0%	Other*	8%
<i>Employment</i>		<i>Employment</i>	
Full-time	64%	Full-time	56%
Part-time	17%	Part-time	12%
Student	11%	Student	16%
Other*	8%	Other*	16%
<i>Education</i>		<i>Education</i>	
Lower than a Bachelors	13%	Lower than a Bachelors	54%
Bachelors Degree	57%	Bachelors Degree	38%
Masters or higher	30%	Masters or higher	8%

* For the sake of brevity, the remaining categories have been collapsed into an “other” category. A breakdown of this ‘other’ category can be obtained from the authors.

Measures

During the simulations, the online software kept track of each respondent’s behaviour in several ways. These included which pieces of information were accessed, the sequence in which information was accessed, the time spent on each piece of accessed information and the overall time spent in forming expectations.

Expectations

Since consumer needs and expectations “overlap exactly, becoming interchangeable” (Oliver, 2011, p.64), the well-known typology of consumer needs – functional, symbolic and experiential (Park, Jaworski, & MacInnis, 1986) – is often used as the types of expectations that consumers form. Based on the definitions of these three types of expectations (Park et al., 1986), we developed a single-item for each type of expectation. Together, these three items formed the scale for measuring the favourableness of the respondent’s expectations (see Appendix A). We used a six-point likert-type scale, ranging from *very low* to *very high*. The Cronbach alpha was

.81 (smartphones) and .77 (hotel services), both values being above the prescribed threshold of .70 (Hair, Black, Babin, Anderson, & Tatham, 2006; Nunnally, 1978).

The respondents were also asked to describe how they formed their expectation. This was an open-ended question and respondents could write as much as they liked. In addition, we also measured if respondents are able to form an expectation of satisfaction with the product or service. Based on past research (Oliver, 1980a), two ad-hoc measures were used, namely, “If I purchase this phone, then the probability that I will be satisfied with this phone is...”, and “If I purchase this phone, then the chances that I will NOT like this phone are...”. The latter item was reverse-coded. These two items were measured using a likert-type scale similar to the other expectations.

Regulatory focus

Higgins and colleagues’ (2001) eleven-item scale was used to determine the regulatory focus of respondents in this study. Among the various regulatory focus scales, this scale is the best in terms of representativeness and predictive validity, while still maintaining internal consistency, homogeneity and stability (Haws, Dholakia, & Bearden, 2010).

Procedure

The first step in this study was to determine the different types of online word-of-mouth information to include in the simulations. We wanted to ensure that these types of information were indeed the ones that consumers are most likely to come across while searching for information prior to purchase. To accomplish this objective, we collected the list of top websites (in terms of web-traffic) in USA and India, from the rankings made public by Alexa, Quantcast, comScore and Hitwise. These four internet analytics companies are most commonly used by

researchers as sources of information for data concerning website traffic rankings (Karpf, 2012). We consolidated these lists of websites into a single list. After removing duplicate websites, the consolidated list consisted of 286 unique websites. We then visited each website and documented the different types of word-of-mouth related information available on them. This yielded 14 different ways in which word-of-mouth related information was displayed (Table 2).

TABLE 2 Types of online word-of-mouth information.

	As a % of all sites (n=286)	As a % of sites with word-of- mouth type of information (n=158)	As a % of sites that allow purchases (n=41)
Overall ranking with numbers shown (only +ve) ^a	30%	54%	85%
Detailed reviews	26%	46%	78%
Number of detailed reviews shown	22%	41%	68%
Facebook likes or shares	39%	70%	59%
Each detailed review has like/dislike option(s) or rating	16%	30%	54%
Overall ranking broken down, showing numbers at each rank ^a	11%	20%	41%
Number of tweets	28%	51%	32%
Number of Google+ recommendations	25%	45%	29%
Individual attributes are ranked ^a	5%	9%	27%
Number of Pinterest shares	9%	16%	22%
Overall ranking without numbers shown (only +ve) ^a	3%	5%	7%
Overall ranking with numbers shown (both +ve & -ve) ^a	5%	8%	2%
Number of LinkedIn shares	5%	8%	2%
Number of StumbleUpon shares	4%	7%	0%

^a Ranking can be in the form of shaded stars, circles or rectangles, or number of views, recommendations, and so on.

Since expectations are closely intertwined with product choice, we chose only those types of information that were present in at least a quarter of the websites that allowed purchases (Table 2). There were nine such types of information. Thus, the simulation consisted of an amalgamation of these nine different types of word-of-mouth information presented in the way they usually appear on websites.

Respondents were randomly assigned to one of the two simulations (i.e., smartphones or hotel services). Before starting either simulation, respondents were informed that the purpose of the simulation was to understand the online behaviour of consumers. They were presented with a scenario about an impending purchase in that particular category and about the availability of information from other consumers that they can use to make a decision. They were also informed that they were free to read as much or as little information as they wanted during the simulation. In the next screen, respondents were shown partial information of all the various types of word-of-mouth in an illegible manner. The illegibility was created by blurring the text and images to make them unreadable. They were then asked which type of information they would like to see in a more legible form, including an option of reading all the types of information simultaneously. Choosing the option of reading all the types of information simultaneously would display all the different types of information legibly on the screen, while choosing a single type of information would display only that information legibly on the screen. After reading the details of the chosen type(s) of information, respondents were asked if they had formed an expectation as yet or if they would like to read more information. This process continued till the respondent had formed an expectation. Both objective and subjective information on the favourableness of the expectation and how it was formed were then collected. Throughout the simulation, the respondent's behaviour was tracked. Each simulation ended as soon as the

respondents provided information on their expectations. After the simulation, the respondents answered questions concerning their regulatory focus. Finally, demography details were collected, after which each respondent was thanked and compensated for their effort.

We analyzed the tracked data to understand which types of information were used by respondents, how often they were used, and how much time was spent on them in order to form an expectation in each scenario. We also used a set of one-way analysis of variance (ANOVA) to determine if there were differences between prevention- and promotion-focused consumers in (i) the number of types of information accessed, (ii) the time spent to form expectations, and (iii) the favourableness of consumer expectations. All analyses were done separately for each product category. During the analyses, we did not find any significant differences between the American and Indian consumers. Therefore, we combined their data for all the analyses (see Appendix C). We have elaborated on this lack of difference between the consumers in the discussion section.

RESULTS

Exploratory results: Consumers' use of information in the formation of expectations³

After aggregating information from the tracked data, we found that for both smartphones and hotel services, detailed reviews were accessed most often (52%). This was followed by the rankings of product attributes (30%) in the smartphone simulation, and by the distribution of the overall ranking⁴ (31%) in the hotel services simulation. We also found that the first piece of information that consumers seek are the detailed reviews of the product (36%) or service (38%).

³ Due to a lack of space, this section provides only limited information on the findings obtained from the simulation data. More details are available in Appendix B.

⁴ This is the overall ranking broken down to show the number of consumers at each rank.

Furthermore, detailed reviews are also often the last type of information accessed just before forming an expectation, and sometimes, even the only type of information that some consumers access. Thus, detailed reviews seem to overshadow all other types of information when it comes down to the consumer's choice of information sources used to form expectations. Most likely, the reason for this is that these detailed reviews contain information from other consumers who have used the product or service, and therefore become a credible source of information. As some respondents put it:

“Reading the reviews... provide[s] an overview of what people have experienced with the phone as well as... a chance to look at some nit picking stuff in the reviews. I'm not the typical consumer so I look at reviews to make sure issues that pertain to me did not come up” (Male, 20 year old student from USA, who has used mobile phones for five years).

In both smartphones and hotel services, only 18% of all the respondents chose to see *all* the available information together rather than separately. This is an indication that consumers prefer to separate available information into smaller manageable parts rather than aggregating them.

Of all the social media indicators, Facebook “likes” were viewed most often (see Appendix B). However, in comparison to the other types of information in both simulations, consumers hardly viewed or quoted the use of social media indicators (like Facebook likes, tweets, and so on) as a source of information while forming their expectations. The simplicity of

these indicators seems to work against them, making them look frivolous in comparison to other sources of information:

“Reviews are the most important. It takes some effort and time to post a review than to click Like or tweet...” (Male, 27 years old from India, who goes on a holiday once every couple of years).

“...I do not trust single-click modes of opinion, such as liking on facebook or google plus or twitter” (Male, 30 years old from India, who has used mobile phones for ten years).

Results from hypothesis testing: The influence of regulatory focus

The results of the one-way ANOVA's⁵ provide support for hypothesis H1b in both smartphones and hotel services, while hypothesis H1a gains support only in the smartphone category (Table 3). It was found that prevention-focused consumers access more pieces of information before forming their expectations (in the smartphone category), and that they also spend more time going through this information before forming their expectations (in both categories). Thus, the regulatory focus of the consumer does indeed create a difference in how consumers use information to form their expectations (Figure 2).

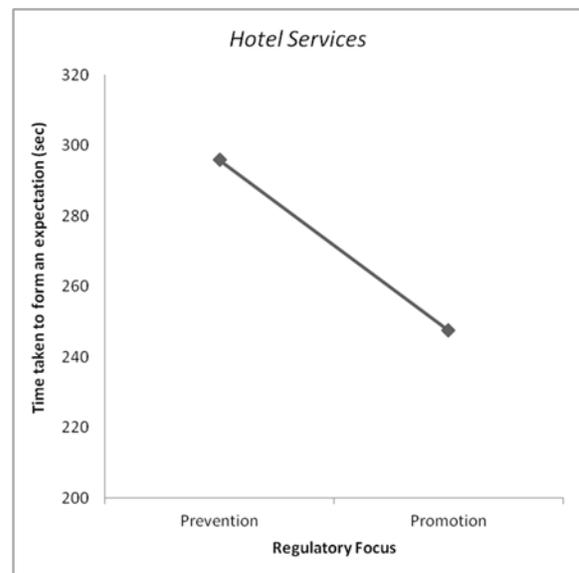
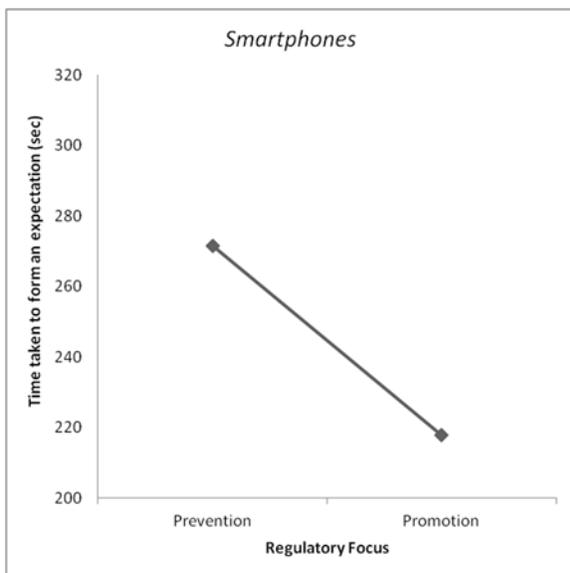
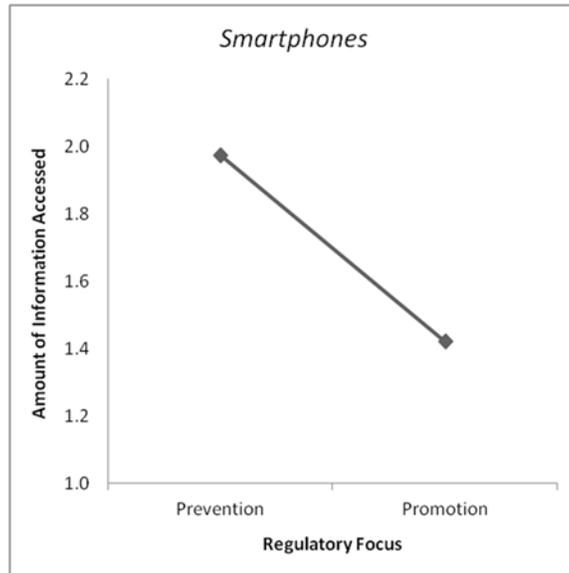
⁵ Since the data failed the Kolmogorov-Smirnov test for normality, we used bootstrapping for the ANOVA.

TABLE 3 ANOVA results: regulatory focus

Dependent	F	Mean		Std. Deviation	
		Promotion	Prevention	Promotion	Prevention
<i>Smartphones</i>					
Number of types of information used	F(1,562) = 5.861*	1.42	1.97	2.34	2.94
Time taken to form an expectation	F(1,562) = 15.993***	218	272	119	183
Expectations of satisfaction	F(1,562) = 20.020***	4.11	3.80	.80	.85
<i>Hotel Services</i>					
Number of types of information used	F(1,563) = .423	1.99	1.77	3.30	3.00
Time taken to form an expectation	F(1,563) = 7.262**	246	296	177	233
Expectations of satisfaction	F(1,563) = 6.524*	4.04	3.86	.88	.78

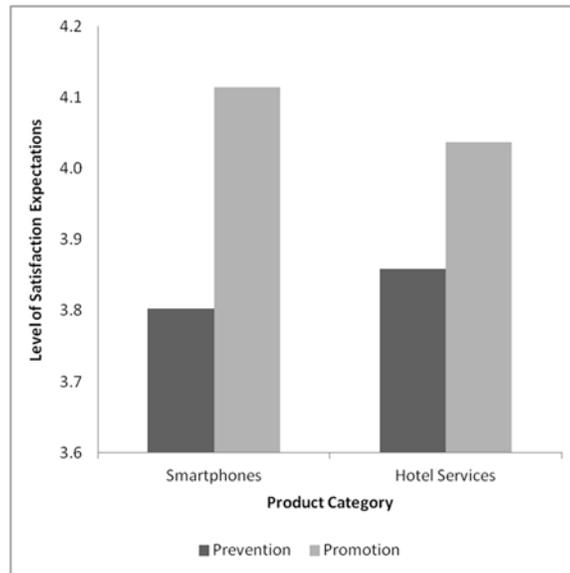
* $p < .05$, ** $p < .01$, *** $p < .001$

FIGURE 2 Impact of regulatory focus on the formation of expectations.



The consumer's regulatory focus also creates a difference in the expectations of satisfaction that the consumer forms (Table 3). The effect was significant in both the smartphone and the hotel services categories. Promotion-focused consumers had higher expectations than prevention-focused consumers (H2 supported; Figure 3).

Figure 3. Impact of regulatory focus on the level of expectations.



Additionally, it was found that among promotion-focused consumers, only 10% (in both smartphones and hotel services) looked at negative-valence information; and among the prevention-focused consumers, only 41% (smartphone) and 28% (hotel services) looked at positive-valence information. In other words, when forming expectations, promotion (vs. prevention) focused consumers seem to be looking for the positive (vs. negative) side of things. These findings are in line with research on regulatory fit, which states that prevention-focused consumers will look for the presence or absence of negative information while promotion-focused consumers will look for the presence or absence of positive information (e.g., Aaker & Lee, 2001; Lee & Aaker, 2004; Wang & Lee, 2006; Zhao & Pechmann, 2007).

A common finding across both promotion- and prevention-focused consumers, and in both the smartphones and hotel services categories, was that both types of consumers preferred to access the different types of information separately rather than all at once. Based on the tracking data, in both categories, only 17-18% of promotion-focused and 18-19% of prevention-focused consumers accessed all the types of information simultaneously. These findings give rise to the idea that it is possible for consumers to form expectations within a ‘narrow frame’. We elaborate on this idea in the discussion section.

DISCUSSION

It is well known that customers have easy access to almost unlimited information on any product or service. The question, however, is *how* do they use all this available information to form expectations of products and services. This study investigated how consumers use online word-of-mouth information (in its various forms) when forming expectations in two categories – smartphones and hotel services. The online simulations were run separately for each of the two categories and the behaviour of consumers was tracked while they used information to form their expectations. The influence of consumers’ regulatory focus on the formation of expectations was also investigated.

Theoretical contribution

In both the smartphones and hotel services categories, we consistently found that consumers prefer to access different types of information separately, rather than all together in a single page. This finding held irrespective of the consumer’s regulatory focus. The phenomenon of separating and processing information in separate pieces rather than in aggregate is known as *narrow*

framing (Kahneman & Lovallo, 1993; Kahneman, 2003). After the consumer has separated the available information into smaller manageable parts (i.e., used a narrow frame), the number of separate parts chosen and the time taken to form an expectation is then influenced by the consumer's regulatory focus.

Online word-of-mouth information is made up of several different types of information – rankings, detailed reviews, dates of review postings, overall recommendations, number of Facebook Likes, number of Tweets, and so on – that consumers have to process when forming their expectations. This information is often large in volume and varies in valence. Using a narrow frame helps consumers to insulate current information processing from other information and consequences (Kahneman & Lovallo, 1993), thereby making it easier to process information. Perhaps, this is why consumers chose to access the different types of information separately in both the smartphone and hotel services simulations – it allowed them to process the volume of information more easily and thus arrive at a conclusion, namely, the expectation of the product or service.

In sum, narrow framing seems essential in determining how information is used in the formation of expectations. Processing the different kinds of online word-of-mouth information simultaneously to form an expectation would require significant cognitive effort. Although online word-of-mouth information has a substantial influence on pre-purchase behaviour (Chevalier & Mayzlin, 2006; Senecal & Nantel, 2004; Zhu & Zhang, 2010), it is unlikely that consumers expend large amounts of cognitive effort to process the volume of information. Accordingly, in this study we found that consumers break down the available information into separate parts and consider only a few of them sequentially rather than in aggregate when forming expectations. In other words, consumers use a narrow frame to form their expectations.

Managerial implications

Consumer expectations are a crucial part of consumer purchase processes and of post-purchase satisfaction. Therefore, understanding how consumers use information to form an expectation for a product is of vital importance to marketers. Such information will aid in managerial actions meant to shape consumer expectations of products and services and thereby, hopefully, increase purchase and/or post-purchase satisfaction.

These days, manufacturers or service providers often use online platforms to make their product/service available to consumers. Online portals that act as platforms for the sale of products (e.g., Amazon.com) or services (e.g., Booking.com) have developed different ways of encouraging customers to spread online word-of-mouth about a purchased good/service. This is because word-of-mouth is as important to these portals as it is for the original manufacturer or service provider. Therefore, the primary concern of a manufacturer or service provider should be the valence of the word-of-mouth rather than its generation because the valence of word-of-mouth information, in conjunction with the consumer's regulatory focus, can influence the formation of consumer expectations (and thereby purchase decisions and consumer satisfaction as well). For example, in this study we found that promotion-focussed (vs. prevention-focussed) consumers go through less information but still form higher expectations, and that they prefer positive-valence information. Therefore, it might be beneficial to sort the word-of-mouth information such that positive-valence information is presented before neutral- or negative-valence information. This is because, to form their expectation, promotion-focussed consumers will read (a little of) the positive-valence information, while prevention-focussed consumers are likely to scroll down the webpage for more information.

Recently, scholars have used automated sentiment analysis to determine the valence of online word-of-mouth types of information (e.g., Sonnier, McAlister, & Rutz, 2011; McAlister, Sonnier, & Shively, 2012). It is possible for managers to use the findings of this study to compliment the use of automated sentiment analyses. Based on the findings in this study, promotion-focused consumers go through less information but form higher expectations than prevention-focussed consumers. When word-of-mouth information is positive, it creates a strong regulatory fit for promotion-focussed consumers and a weak regulatory fit for prevention-focussed consumers. This is because promotion (vs. prevention) focused consumers are known to seek out positive (vs. negative) information (Higgins, 1997, 2002), and thus the presence of positive (vs. negative) word-of-mouth will create a strong regulatory fit for promotion (vs. prevention) focussed consumers (Idson, Liberman, & Higgins, 2000; Zhang, Craciun, & Shin, 2010). A strong regulatory fit increases the consumer's motivation to process the available information to form an expectation (Idson et al., 2000; Lee & Aaker, 2004). Therefore, positive word-of-mouth will facilitate the formation of high expectations for promotion-focussed consumers, and, at the same time, it prevents the formation of low expectations by prevention-focussed consumers. High expectations help in generating satisfaction (especially when performance judgments cannot be made; Oliver, 2011), as well as in improving the chances of purchase.

On the other hand, when word-of-mouth information is negative, it creates a strong regulatory fit for prevention-focussed consumers and a weak regulatory fit for promotion-focussed consumers. This is because prevention (vs. promotion) focused consumers are known to seek out negative (vs. positive) information (Higgins, 1997, 2002), and thus the presence of negative (vs. positive) word-of-mouth will create a strong regulatory fit for prevention (vs.

promotion) focussed consumers (Idson et al., 2000; Zhang et al., 2010). A strong regulatory fit increases the consumer's motivation to process the available information to form an expectation (Idson et al., 2000; Lee & Aaker, 2004). Therefore, negative word-of-mouth will facilitate the formation of low expectations for prevention-focussed consumers, and, at the same time, it prevents the formation of high expectations by promotion-focussed consumers. Thus, it is crucial that the firm pays attention to negative word-of-mouth about its products. Such information can help the firm correct mistakes in its product or in its marketing of the product. By knowing the content of the negative word-of-mouth information, the firm can use advertising and other marketing communication tools to try and counter the negative information. By correcting mistakes or countering negative word-of-mouth, the firm can hope to raise the level of expectations among consumers.

In this study, we also found that consumers are not interested in using social-media based word-of-mouth information like Facebook likes, tweets, or Google recommendations, for the formation of expectations. Consumers believe that such information is not trustworthy due to the ease with which such information is generated. Instead, consumers preferred to look at more detailed forms of information like online reviews, distribution of rankings, and the ratings of attributes. Therefore, attempting to use social-media based word-of-mouth information to shape consumer expectations might not yield fruitful results.

Limitations and future research

The limitations of this study serve as avenues for further work on this topic. First, we have considered how consumers use different types of *online* word-of-mouth information to form their expectations; we have not explicitly considered *offline* word-of-mouth. The primary reason for

not considering offline word-of-mouth is that an observational study of offline word-of-mouth is far more cumbersome and is fraught with issues of validity that are often associated with observational studies. Even so, future researchers might be able to benefit from observing the formation of expectations when consumers use offline word-of-mouth. A starting point could be the Keller Fay research program, which already tracks offline word-of-mouth for several brands everyday (Keller, 2007).

Second, Yoon, Sarial-Abi, and Gurhan-Canli (2012) recently found that the information load on consumers influences the impact of regulatory focus on information processing. Given that there are large volumes of different types of word-of-mouth information for any given product or service on the internet, it is possible that online consumers are under a high information load. We did not test for the moderating role of information load in our research. Nonetheless, in line with Yoon and colleagues (2012), we expect that when consumers are under a high information load, they will rely more heavily on information consistent with their regulatory orientation when forming expectations. Therefore, to incorporate this moderator into a future study, researchers could perhaps vary the amount of information made available to consumers of different test groups.

Lastly, to test the hypotheses across categories, we used one item from the products category (i.e., smartphones) and one item from the services category (i.e., hotel services). This might affect the generalisability of our findings. However, it does not necessarily affect how researchers and managers can utilize the essence of our findings in other categories because most product and service categories today have some form of online presence (and therefore online word-of-mouth as well). Nonetheless, expanding the number of product and service categories in a replication study would be a useful extension of this research.

Although culture is known to influence consumption (Lambin, Chumpitaz, & Schuiling, 2007; McCracken, 1986) and consumers from developed nations differ from consumers in developing nations (in consumer-behaviour; De Mooji, 2003; De Mooji & Hofstede, 2011), we did not find any differences between the American and Indian consumers in the formation of expectations. Similarity of subcultures is a possible explanation. Kates (2002, p.384) defines a subculture “as a way of life expressing shared meanings and practices different from or oppositional to dominant, mainstream culture”. Due to increasing levels of globalisation, it is possible that there is high similarity between American culture and an Indian subculture of young, educated and internet-savvy individuals. As a result, culture might not serve to create a difference in consumer behaviour in this particular case. Marketing to such subcultures can be approached through tribal marketing (Cova & Cova, 2002; Cova & White, 2010). Future cross-cultural researchers would therefore benefit by ensuring that their consumer samples are not only from different cultures, but from different subcultures as well.

APPENDIX A

The scale items used in this study are listed below.

1. **Expectations** (six-point likert-type scale, ranging from *very low* to *very high*)
 - a. (*Functional*) The chances that this [phone/hotel] will meet all my [communication-/holiday-] related needs are...
 - b. (*Symbolic*) The chances that this [phone/hotel] will make others think positively of me are...
 - c. (*Experiential*) The chances that I will enjoy my experience with this [phone/hotel] are...
2. **Expectations of Satisfaction** (six-point likert-type scale, ranging from *very low* to *very high*)
 - a. If I purchase this phone, then the probability that I will be satisfied with this phone is...
 - b. If I purchase this phone, then the chances that I will NOT like this phone are...
(this item was reversed coded)
3. **Regulatory Focus** (Higgins et al., 2001)
 - a. Compared to most people, are you typically unable to get what you want out of life?
 - b. Growing up, would you ever “cross the line” by doing things that your parents would not tolerate?
 - c. How often have you accomplished things that got you "psyched" to work even harder?
 - d. Did you get on your parents’ nerves often when you were growing up?

- e. How often did you obey rules and regulations that were established by your parents?
- f. Growing up, did you ever act in ways that your parents thought were objectionable?
- g. Do you often do well at different things that you try?
- h. Not being careful enough has gotten me into trouble at times.
- i. When it comes to achieving things that are important to me, I find that I don't perform as well as I ideally would like to do.
- j. I feel like I have made progress toward being successful in my life.
- k. I have found very few hobbies or activities in my life that capture my interest or motivate me to put effort into them.

APPENDIX B

The details of the tracked data are given in Tables B.1 and B.2. The numbers in the tables represent the percentage of respondents who accessed the particular piece of information in the simulation. The percentages in the first row (i.e., “% of total respondents”) will not add up to 100% since each respondent could access more than one piece of information. For the same reason, the percentages in the third row (“only choice”) will also not add up to 100%.

TABLE B.1. Tracked data obtained in the smartphone simulation (n=585)

	DR	FB	OR	AR	Tweets	GR	All Inf.
% of total respondents	52%	13%	28%	30%	6%	6%	18%
First choice	36%	4%	19%	21%	1%	1%	18%
Only choice	14%	1%	3%	6%	0%	0%	18%

Notes: DR = detailed customer reviews; FB = Facebook “likes”; OR = overall ranking broken down, showing numbers at each rank (e.g., distribution of stars); AR = ranking of individual product attributes/features; GR = Google+ recommendations; All Inf. = all the previous pieces of word-of-mouth information viewed at the same time.

TABLE B.2. Tracked data obtained in the hotel services simulation (n=580)

	DR	FB	OR	AR	Tweets	GR	All Inf.
% of total respondents	52%	15%	31%	29%	6%	7%	18%
First choice	38%	6%	20%	17%	0%	1%	18%
Only choice	15%	0%	4%	3%	0%	1%	18%

Notes: DR = detailed customer reviews; FB = Facebook “likes”; OR = overall ranking broken down, showing numbers at each rank (e.g., distribution of stars); AR = ranking of individual product attributes/features; GR = Google+ recommendations; All Inf. = all the previous pieces of word-of-mouth information viewed at the same time.

APPENDIX C

The primary purpose of this study is to explore the formation of consumer expectations, to garner a better understanding of how consumers use available information to form expectations. As a part of this endeavour, we also wanted to check if there are any differences in the formation of expectations across countries or do consumers from different countries form expectations in the same way. Therefore, one of the underlying motivations for choosing more than one country was so that the findings (and implications) of this study would not be limited to a single country context.

Even though this study is not primarily a cross-cultural study (that aims to find differences across cultures in the construct of interest), we took into consideration the various issues of international marketing raised by Douglas and Craig (2006) while developing the study, and while collecting and analysing the data. Accordingly, (i) we chose product categories with which consumers in both countries are well-versed; (ii) we conducted our survey in English in both countries so that issues of translation and back-translation (Brislin, 1986) would not be a problem; (iii) we measured neither changes in attitude/behaviour nor culture-specific constructs by asking the consumer about the same; (iv) the analysis was largely done on tracked data instead of survey responses so that biases in equivalence would be minimal; (v) we conducted two pre-tests, of which one was done across both countries, in order to ensure equivalence of stimuli.

In addition, we also conducted measurement equivalence tests. We tested for measurement equivalence for the 3-item scale on expectations and for the 11-item regulatory focus scale, separately in each category. We found full equivalence for the expectations scale in

both categories; for the regulatory focus scale, we found full equivalence in the hotel services category but only partial equivalence in the smartphone category. The 11th item of the regulatory focus scale (i.e., “I have found very few hobbies or activities in my life that capture my interest or motivate me to put effort into them”) was not equivalent across India and USA in the smartphone category. However, since it is only one item in one category that is not equivalent across the two countries, we consider our scales to be equivalent across both India and USA. These procedures ensure equivalence of the US and Indian data, thereby allowing us to combine the two datasets.

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