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'Fear of Missing Out' (FOMO) marketing appeals: A conceptual model

Chris Hodkinson

The University of Queensland Business School, The University of Queensland, Brisbane, Australia

ABSTRACT

The 'Fear of Missing Out' ('FOMO') is a well-known concept in popular culture. Consequently, it has been co-opted and successfully utilised in commercial advertising appeals to initiate sales. However, academic research to date has focussed exclusively on FOMO as an individual trait *leading to self-initiated* FOMO-driven behaviours. By contrast, the success of FOMO sales appeals relies upon consumers' *responses*; therefore, it is necessary to understand these response mechanisms. This is the first known academic research to investigate consumer response mechanisms in relation to *externally initiated FOMO appeals*. In doing so, this research develops an original taxonomy of FOMO appeals; establishes a thematic map of response elements; identifies theory relevant to individuals' responses; formulates an operational response model; and proposes a future FOMO research agenda.

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FOMO appeal; response model; consumer behaviour; regret

Introduction

This paper investigates consumers' response mechanisms to *external* Fear of Missing Out (FOMO) appeals; as such, it differs entirely from previous academic research in the area. Prior research has generally focussed on individuals' *self-initiated* FOMO-driven behaviours and has treated the FOMO phenomenon almost as a personality trait *leading to* various behaviours. Examples of this approach include: mobile phone checking behaviour (Collins 2013; Hato 2013), alcohol use (Riordan et al. n.d), use of social media (Przybylski et al. 2013), Internet addiction (Kandell 1998) and rural tourism visitation behaviour (Hay 2013). Popular press has echoed this line of academic research; consequently, FOMO is typically referred to in a negative light, especially in relation to social media and smart phone usage.

The FOMO is a well-established phenomenon in modern culture and in the popular press. As a result, commercial industries have also successfully exploited the concept via FOMO-based advertising appeals. This commercial tactic has generated significant sales revenue within numerous product and service domains, which is subsequently the result of consumers' *responses to externally initiated FOMO appeals*. Yet, little academic attention has focussed on consumer response mechanisms to FOMO appeals. This exploratory conceptual paper is the first to address how consumer behaviours develop in response to external FOMO appeals. In doing so, this research develops an original taxonomy of FOMO appeals and a

thematic map of response elements. Furthermore, the research identifies relevant theory associated with individuals' response outcomes and establishes an operational response model. To conclude, the paper offers a view of managerial implications and proposes a future FOMO research agenda.

FOMO – unclear origins

A fear of 'missing out' as an element of human behaviour is rooted in historic origins. However, the 'FOMO' nomenclature does not appear in academic research before 2010, specifically in the work of Voboril (2010). The popular press frequently states that the term 'FOMO was coined by Watson and Meyer in 1985' (e.g. Batorski 2011), although the reference is not locatable. Whatever its origin, the concept became a popular culture *meme* that was originally used to refer to a personal foible – often in a playful if slightly pejorative sense. Elements of modern culture are often 'commercially appropriated' (McCracken 1986), which has also been seen in the case of the FOMO concept. FOMO has been opportunistically adopted within direct 'call to action' appeals that are particularly aimed at the youth market. While calls to action are common in marketing, FOMO appeals are distinctive in that they call on the consumer to directly address their internal hesitancy, or resistance, to assent to an action. This is in contrasted with scarcity appeals, which attempt to raise concern in the consumer by creating perceptions of limited supply or limited time deals. While the two appeals differ markedly in their framing, in that one addresses the individual and the other the product, both types of appeals potentially trigger the *FOMO* at an individual level.

The significance of FOMO appeals in the marketplace

The 'Fear of Missing Out', known by the acronym 'FOMO', is a concept embedded in popular culture and the youth psyche. This is evidenced by the existence of some 106,000 FOMO-related YouTube clips (accessed 22 February 2016). Similarly, a Google search for 'FOMO advertising campaigns' (accessed 26 May 2016) yields some 203,000 advertising agency and trade journal articles about FOMO advertising campaigns as a key to the youth market. FOMO appeals have been used commercially to stimulate demand for youth and younger adults' products, including: beer, boutique clothing, feminine hygiene products and real estate for young first home buyers (e.g. RealEstate.com.au campaign 2009–2010). The promotion of travel campaigns appears to be the most common marketing application of FOMO appeals. This is evidenced by the 15.7 million results yielded by a simple Google enquiry of the terms 'fear of missing out' and 'travel' (accessed 22 February 2016). Additionally, the advertising industry press is replete with articles on the success of FOMO travel promotions. Examples include: 'Winning with FOMO' (*Marketingmag*, 2016), 'Cruisings: A New Breed of FOMO' (*Travel Weekly*, 2014) and 'MTV and Flight Centre Create Travel "FOMO"' (*Mediaweek*, 2015).

In summary, FOMO is a well-established phenomenon in popular culture that has been appropriated successfully for commercial purposes, yet its use as an appeal has attracted limited academic interest. Given that FOMO appeals are commercially viable and used extensively within current commercial markets, there is a lack of knowledge and understanding surrounding consumers' responses to FOMO appeals. More specifically, this financially and culturally significant marketplace phenomenon is operating without a conceptualisation of

the response mechanisms that drive its commercial success. Hence, this exploratory conceptual paper responds to the recent call by Yadav (2010, 2) 'for conceptual articles in the field of marketing, related to concepts and theories, which are not well understood', by contributing further insight to enable a conceptualisation of the FOMO phenomena. The current research utilises qualitative methods to explore elements of *externally initiated FOMO appeals* and aspects of consumer response mechanisms in order to develop greater knowledge of decision-making processes and consumer responses to FOMO-based appeals. This is achieved through gaining an understanding of the circumstances under which the FOMO phenomena manifests and how, when and by whom FOMO appeals are successfully initiated.

FOMO defined

While articles mentioning 'missing out' on a limited resource are evident in academic scholarship (e.g. Bonabeau 2004), they typically have economic bases. However, specific definitions of FOMO are rare in the extant literature. J. Walter Thompson (JWT) Worldwide (2011, 2012) define FOMO as 'the uneasy and sometimes all-consuming feeling that you're missing out – that your peers are doing, in the know about, or in possession of more or something better than you' (2011, 4). Whereas Przybylski et al. (2013, 1841) define FOMO as ... 'a pervasive apprehension that others might be having rewarding experiences from which one is absent'. 'Missing out' and temporal appeals have long been a part of personal selling sales 'closes'; however, in the case of an external *FOMO appeal*, they are an *initiating* tactic. For the purposes of this research, an *externally initiated FOMO appeal* is defined as: *Any initiating appeal, whether in person or impersonal, in which FOMO or 'missing out' is mentioned or specifically implied*. A second definition used in this research differentiates between *commercial* and *non-commercial* FOMO appeals. Again, for the purposes of this research, commercial FOMO appeals are defined as: *Any initiating appeal, whether in person or impersonal, originating from an organisation, in which FOMO or 'missing out' is mentioned or specifically implied and the context of which is the stimulation of demand, usage or purchase of a product*.

Previous FOMO research

A summary of previous academic FOMO research is provided in Table 1 in Appendix 1, which clearly shows that FOMO has been explored on a trait basis as exemplified by Przybylski et al.'s scale (2013).

Addressing FOMO as a trait-based characteristic is a valid perspective as psychological phenomena is often observed through individual propensities, dispositions and characteristics inherent in human behaviour. Psychological scales, such as Przybylski et al. (2013) FOMO scale, are devised to accurately measure different factors of individual variables (e.g. traits, behaviour, emotions, motivation and/or attitudes). These scales can also be used to determine individual differences between people and among population groups.

In this regard, there are two trait-based theories that may be relevant to FOMO appeals and individuals' response mechanisms, as both paradigms relate to individual differences in propensities. The first body of theory relates to self-control and its consequences (Keinan and Kivetz 2008). In the FOMO context, this relates to the taking (or not) of opportunities, the impact of those decisions and the role of regret in affecting subsequent decision-making. The

second theoretical resource is self-determination theory (SDT) (Deci and Ryan 2008a, 2008b) which addresses the relationship between controlled and autonomous motivation and individual wellness. Both bodies of theory address the potential outcomes of individual responses to FOMO appeals. Keinan and Kivetz's (2008) self-control theory deals with approach avoidance responses to stimuli which may lead to the activation of an individual's behavioural inhibition system (BIS) (Davidson 1993; Gray 1990) or their behavioural activation system (BAS) (Davidson 1993; Depue and Collins 1999; Gray 1990). Keinan and Kivetz (2008) apply this theory to self-indulgent consumption decisions, the possible development of regret and the impact of such regret on responses to subsequent hedonic temptations. As such, it has an immediate application to FOMO appeals and their potential outcomes. Related to this is the concept that approach avoidance responses are also influenced by fear and that there are differences in individual propensities for fear arousal. If an individual has such a propensity for fear arousal, they are referred to as possessing 'reactivity' (Dillard and Anderson 2004). However, FOMO is an unusual case in that if a genuine *fear* of missing out is engendered by a FOMO appeal, then reactive individuals will tend to be driven to take up the offer (i.e. approach) rather than to reject it (avoid). Alternatively, if fear is not an element of an individual's response to FOMO appeals, then SDT, as conceptualised by Deci and Ryan (2008a, 2008b), is more relevant. SDT theory differentiates between *autonomous motivation* and *controlled* motivation. The former, autonomous motivation, comprises elements of intrinsic and extrinsic motivations. By contrast, *controlled motivation* consists of external regulation, reward/punishment and internalised factors such as approval, shame avoidance, ego-involvement and self-esteem. Given the social pressures that are often integral to FOMO appeals, SDT is also relevant. This investigation of FOMO responses will clarify the applicability of these trait-based theories.

In addition to the academic research, a large number of articles regarding FOMO have appeared in the media. While many of these have been 'opinion pieces' or echoed the academic research, some of the articles have been authored by academically accredited psychologists (e.g. Grohol 2011) and qualified sociologists (e.g. Turkle 2011, 2015). A common theme of both academic and popular press articles on FOMO is the overuse of interconnectivity. Examples of relevant research include the excessive and even compulsive use of smart phones and/or social media and its negative outcomes. However, neither academic nor popular press articles have considered FOMO-based advertising appeal responses, despite their obvious presence in the marketplace.

The research questions

The trigger for this research was the observation of a campus travel poster displaying a European holiday scene of young people partying with a greyed-out silhouette, representing a missing person and the wording 'FOMO? – Book now for Europe' as a marketing 'call to action'. While the poster exhibited 'visual rhetoric' (Campelo, Aitken, and Gnoth 2011), its core message of 'missing out' on potentially fun and memorable times is the nub of FOMO appeals. Such appeals are 'push force' motivators (Kim, Oh, and Jogaratnam 2007) that are presently utilised in commercial markets to promote action. This raises the broad research question:

(RQ1): What are the mechanisms of consumer response to an externally-initiated FOMO appeal?

A number of sub-questions based upon the consumer decision-making paradigm will be used to guide this exploratory research; they are:

- (RQ1a): *How* are externally initiated FOMO appeals made and by whom?
 (RQ1b): On *what occasions* are externally initiated FOMO appeals made?
 (RQ1c): What kinds of *response* are engendered in such FOMO appeal recipients?
 (RQ1d): Do FOMO responses include *fear* as such?
 (RQ1e): *When* does the FOMO phenomenon manifest itself?
 (RQ1f): What are the potential outcomes of decision-making initiated by an external FOMO appeal?

Method

A five-stage methodology was adopted for this exploratory research, which was approved by the University ethics committee. Stage I: informal class-based focus groups with students (to allow the researcher to obtain an understanding of the FOMO concept and its meaning in youth culture). Stage II: formal protocol-based focus groups using a new student sample. Stage III: parallel data analyses ((1) manual transcript coding and (2) independent coding and analysis by another researcher, using textual analysis software). Stage IV: identification and analysis of the response variables and Stage V: identification of relevant theory and the construction of a conceptual FOMO response model.

The sample

Since young consumers commonly exhibit FOMO and are typically the subject of FOMO appeals, it was appropriate to utilise a convenience sample of undergraduate university students. A total of 56 students took part in Stage I, which comprised of three class-based focus groups to provide the general understanding of the FOMO concept. This was initiated by two simple questions: (1) 'What is "FOMO?"' and (2) 'What does FOMO mean to you?' Rather than defining the term, the students described a variety of situations in which a FOMO appeal would initiate a decision. These responses and explanations were recorded in note form, which subsequently provided the basis for the formal protocol for the Stage II focus groups.

For Stage II, a new sample of students was recruited from the wider student population by offering an approved minor incentive. Students from a broad range of disciplines volunteered to partake in the focus groups. The protocol for these focus groups incorporated open-ended questions, which were designed to investigate the respondents' level of familiarity with the FOMO concept, FOMO appeals and their initiation. Probing was also used as a research technique to explore topics until no additional themes appeared (saturation). The study-wide saturation of data was obtained after six focus groups ($n = 34$). The Stage II focus groups were audio-recorded, independently transcribed and vetted for correctness by the researcher.

The data analyses

Content analysis is a widely employed qualitative technique (Hsieh and Shannon 2005), which is utilised in many areas of social science. While content analysis has its limitations (Tesch 1990), it is suited to concept development and model building (Lindkvist 1981), which are the objectives of this exploratory research. To provide a degree of triangulation, two parallel content analysis methods were operationalised. The first was a 'manual' method in

which transcripts were read to obtain 'a sense of the whole' (Tesch 1990); then, the data were reread word by word to identify key themes and concepts to devise a coding schema (Miles and Huberman 1994; Morgan 1993; Morse and Field 1995). This iterative coding process (Coffey and Atkinson 1996; Patton 2002) proceeded until coding stability was established, meaning that no new concepts were discovered by further rereading.

The manual coding process was undertaken by a single coder – the primary researcher. This procedure was augmented by a parallel independent coding/analysis using the Leximancer software-based textual analysis tool (Leximancer Pty Ltd 2014), which was completed by a PhD-qualified consumer behaviour researcher. Leximancer uses a built-in thesaurus to identify concepts within full-text documents, then clusters related concepts into themes and provides a visual display of the data.

Results

Focus group findings

Findings from the two independent textual analyses were compared and contrasted. The thematic diagram derived from the Leximancer analysis provided additional insights into emotive and cognitive themes present in the pre- and post-decision phases of responding to FOMO appeals. These two sets of results identified variables for inclusion in the FOMO response model. The following themes were elicited from the anonymised focus groups transcripts, which correspond with the set of sub-research questions as outlined below ('FG' and an associated number refer to the relevant focus group).

(RQ1a) How are externally initiated FOMO appeals made and by whom?

While not all participants were aware of the FOMO acronym, virtually all respondents stated that they had been recipients of commercial and non-commercial appeals, which specifically had 'missing out' as their motivation. Verbatim responses in relation to commercial appeals included:

'... it's definitely a tactic that you see used more often than you're aware of' (FG#4), 'you fall for it all the time' (FG#4), and 'travel agents usually do [use it]' (FG#1). However, similar non-commercial appeals appeared to be a regular part of a young person's social life e.g. '... you get it from your friends and stuff, you know, "come out with me, we'll have a really time", "you're going miss out" and stuff ... it's always there.' (FG#3)

The respondents nominated *commercial* FOMO appeals as being initiated personally via 'salespersons' (FG#2), staff, or impersonally via 'advertisements' and 'sales catalogues' (FG#6). However, *non-commercial* FOMO appeals comprised the majority of the examples cited by focus group participants. Whether commercial or non-commercial in nature, in-person or face-to-face appeals were seen as carrying more weight, e.g. 'having a real person talking to you is going to make a bigger difference' (FG#6). However, sales staff were regarded as having a lower credibility than 'significant others', e.g. 'my family and friends are always influential as well, like if they say to you – you know "come along" or ... because you know, I think that they're people that you trust ... I don't find the sales assistants trustworthy ...' (FG#5). In terms of the mode of delivery of FOMO appeals, those initiated by friends or family were commonly delivered face to face but they could also be delivered *impersonally* via telephone, text messages or via social media, e.g. 'Facebook invitations' (FG#6).

The respondents' views on *FOMO appeal initiators* and delivery modes were consistent and were stated with conviction, especially the differentiation between 'commercial' and 'non-commercial' FOMO initiators. Additionally, respondents further categorised FOMO appeal initiators into 'impersonal' and 'in-person' classifications. These findings led to the proposed typology of external FOMO appeal initiation, as shown in Figure 1 in Appendix 2, which was derived from the dimensions of *commercial/non-commercial* and *in-person/impersonal* classifications. This yielded four combinations of external FOMO appeal initiator categories, as outlined below:

- (1) *Impersonal non-commercial*: this category refers to appeals such as a friend issuing a party invitation via social media that specifically incorporates a FOMO appeal.
- (2) *Impersonal commercial*: whereas, this category refers to an advertisement initiating a 'missing out' appeal delivered by any impersonal communication mode (e.g. advertising).
- (3) *In-person commercial*: by contrast, this source of external FOMO appeal includes general sales staff.
- (4) *In-person non-commercial*: these FOMO appeals are typically seen as initiated by significant others, for example, close friends, parents and family members.

This taxonomy of external FOMO appeal initiators is original to the current research and appears to be the first of its kind related to FOMO appeals. It thus makes a significant contribution to the understanding of FOMO by: (1) acknowledging the mode of initiation (i.e. personal/impersonal); (2) acknowledging the purpose (i.e. commercial/non-commercial); (3) encompasses social event FOMO appeals – which are a common part of youth culture and modern day life; and (4) provides the initial basis for developing a proto-model of FOMO appeal for operationalisation.

(RQ1b) On what occasions are externally initiated FOMO appeals made?

Participants in the focus groups nominated a wide range of social events and unique experiences as examples of non-commercial missing out appeals. Opportunities mentioned included: music concerts, friend's trips, parties, graduations, relative's birthday parties and even funerals. By contrast, commercial appeals were viewed as directly promoting goods and services, including: new technology, low-volume fashion, 'limited editions' and particularly travel packages.

(RQ1c) What kinds of response are engendered by such FOMO appeals in recipients?

Missing out on social events was strongly *felt* by recipients, especially when other individuals known to the respondent were going to attend. Relevant quotations included: 'you know, what makes it worse is when other people you know are going and they always talk about it' (FG#5), 'It's not so much the event that you're missing out on *it's the social experience*' (FG#6). These quotations captured the essence of the felt pressures of 'missing out', which accurately corresponds with the JWT definition cited previously. There was also a *competitive social element* evident in some of the discussions, for example, 'I think also there's a competitive factor. Like sometimes you'll be like others are getting to do this and I'm not ... there's a *competitive feeling*' (FG#6). Inherent in these FOMO experiences (not FOMO appeals) were themes of: opportunity; limited supply; or scarcity – and the necessity to make choices. There was also at times the spontaneous mention of 'opportunity cost' – the core of FOMO appeals

in FGs# 4 and 6 – which showed that they realised that the choice of one course of action necessitated missing out on another competing option.

(RQ1d) Do FOMO responses include fear as such?

The nature of FOMO itself was also investigated – as to whether it was actually a ‘fear’. Although some respondents (FG#5) felt it was a genuine fear, others felt that was overstating the phenomenon: ‘it is an emotion but not really fear’ (FG#6 – which included some group dissention). Some participants stated it was ‘more like a sinking feeling’ (FG#5), while others saw it as a matter of degree, e.g. ‘I suppose it would depend on whether you actually *wanted* to go to the secondary choice, as to how much of the fear of missing out you actually feel’ (FG#3). Some taxonomies of emotion reflect this interpretation, for example Laros and Steenkamp (2005) (based upon the work of Richins 1997) list ‘scared’, ‘afraid’, ‘panicky’, ‘nervous’, ‘worried’ and ‘tense’ as emotions lesser than but *allied* to ‘fear’. Other respondents saw the FOMO as real and inherent, especially in relation to social events, e.g. ‘I felt that the social factor of fear of missing out is just an everyday factor that you deal with’ (FG#2). In summary, FOMO was readily acknowledged as a *negative emotional response* to a choice situation, the degree of which was variable and in the extreme could manifest as fear in some individuals. Increased anxiety appeared more likely to occur in relation to social events. Thus, in relation to the theoretical bases for this research, in the absence of fear, SDT (Deci and Ryan 2008a, 2008b) appeared applicable in most cases; however, those ‘reactive’ individuals who experienced genuine fear would have had approach avoidance (BIS–BAS) conflicts triggered in the mode described by Keinan and Kivetz (2008).

(RQ1e) When does the FOMO phenomenon manifest itself?

Opinion was sought on how the *feeling* of ‘missing out’ manifests itself. The predominant opinion was that it is an *emotion that follows* cognition, i.e. emotions are elicited after the actual consideration process in decision-making situations. ‘It starts off as a thought but it can turn really emotional’ (FG#4); ‘I think it definitely stems from thought’ (FG#2); ‘The FOMO feeling is the result of thinking about the event, before the event’ (FG#4). In confirming the cognition-then-feeling process, there are evidently *anticipative* elements of consideration as to *how the individual will feel in the future* about their decision. Additionally, there was a common inference that the *amount* of time one had to consider the initial decision, and also to consider the potential outcome, affected whether one might feel in danger of ‘missing out’ (i.e. pre-event) or having ‘missed out’ (post-event). This was summarised in the quotation ‘I think generally everyone is saying it’s how much time you have to dwell on the issue’ (FG#3). This also implies that *situational factors* can affect the responses to FOMO appeals.

On this point, there was uniform agreement, perhaps unsurprisingly, that the ‘fear’, stress or concern manifested generally *before* the decision was made, i.e. in the pre-decision phase. This response effect is illustrated by the following verbatim quote: ‘For me the fear factor is sort ... is like *before you’ve made the decision*, so I’m having a fear of making the decision, whether to miss out, so I really can’t feel like I’ve had a fear after I’ve made the decision’ (FG#2) – ‘because you’re making a conscious choice you can’t really be scared of the consequences ...’ (FG#2). On the basis of a number of these similar comments, it was concluded that response emotions were generally exhibited during the pre-decision process while consideration was being given to the importance of the decision, alternative possibilities and any *anticipated* post-decision ramifications. The respondents’ comments suggested that once a decision had been made,

while it often relieved the FOMO stress, lingering doubts about the wisdom of a decision could remain.

(RQ1f) What are the potential outcomes of decision-making initiated by an external FOMO appeal?

The primary post-decision emotions identified by participants were the negative emotions of *regret* and *disappointment*. Notably, *satisfaction* – which Oliver (2014) regards as an ‘appraisal emotion’ – was not mentioned by respondents (post-consumption and post-event judgements will be addressed later). Guilt was also mentioned, e.g. ‘it’s not just the fear it’s if you miss out – you can feel *guilty* about it as well ...’ (FG#3). The mention of these three emotions (i.e. regret, disappointment and guilt) is not unexpected as they are generally regarded as closely related emotions in Plutchik’s taxonomy (Plutchik 1980). However, just as there was regret at buying or *taking* an option or an action, i.e. ‘regrets of commission’, also evident in the comments were regret and guilt at *not acting*, i.e. ‘regrets of omission’ (Leach and Plaks 2009; Zeelenberg et al. 2010). This is exemplified in the following comments:

‘I’ve also had the regret of not buying’ (FG#5). Even though some respondents stated that they ‘had a no regrets policy’ (FG#6), others doubted that would always be true, e.g. ‘I think it’s easy for people to say “I don’t regret anything I’ve done” – but if you’re really honest with yourself you’d definitely have a few regrets.’ (FG#2)

In contrast to the special consideration given to personal appeals from significant others, there was heavy cynicism towards commercial FOMO appeals delivered in person by sales staff, e.g. ‘Yeah it’s probably just a marketing tool [used] to inflate people’s feelings just so they can think, “oh I don’t want to miss out”’ (FG#4). Furthermore, some respondents felt that regret could be ‘very easily paired’ with actions taken as a result of responding to commercial FOMO appeals (FG#3). In some cases, the respondents specifically identified the marketing phenomenon of ‘buyer’s regret’ (buyer’s remorse), as in the example below:

I definitely think the two [i.e. FOMO and buyer’s regret] go hand in hand, but I think it’s because the fear as an element of purchasing something, is a very short-lived sort of feeling and I think especially once you have whatever it is, that you’re afraid of missing out on, you generally realise that it’s not all it’s cracked up to be. (FG#4)

This not only suggests that regret may be a post-decision feature of actions taken as a result of commercial FOMO appeals, but that the ‘fear’ element of any FOMO appeal tends to be extinguished by taking the requested action. Indeed, the option to rapidly remove the highlighted discomforting emotion or ‘fear’ may be in part responsible for the FOMO appeal’s commercial success. Others considered FOMO appeals to be consumer manipulation and suggested tactics to offset such attempts. Generally, they thought that commercial FOMO appeals were likely to be blunted by effective pre-purchase information search, e.g. ‘... as long as you’re a little bit educated in what it is you’re going to buy, that fear element doesn’t really influence you’ (FG#4).

Results of the parallel thematic analysis

A thematic diagram derived from the Leximancer analysis of the transcripts is shown as Figure 2 in Appendix 2. Each sphere is labelled in uppercase to identify the *theme* it represents, whereas the *concepts* which comprise the theme are shown in lower case within the

same sphere. The size of each sphere in Leximancer's thematic diagram indicates the *relative importance* of each theme, with larger spheres indicating a greater importance in the discourse. Additionally, the proximity of spheres to each other indicates the level of *interrelatedness*. Thus, spheres in close proximity to each other represent closely related themes, whereas spheres more distant from each other are less related. Considered in the light of the consumer behaviour information search and decision-making paradigm, the thematic diagram provides insight into cognitive and affective elements present in the pre- and post-decision phases of FOMO appeal responses. As illustrated in the thematic diagram, 'missing' is the predominant theme. This is closely interlinked with 'opportunity' and the emotive response 'feel' – this includes emotions evident in the manual analysis. Together, 'missing', 'opportunity' and 'feel' form an *emotive cluster* related to the *pre-decision* phase of FOMO as mentioned in the transcripts. By contrast, the limited (i.e. finite) resources of 'time' and 'money' were of minor concern, but were more closely related to the emotive cluster than 'thought' (i.e. cognition), which was a more distant concept of lesser importance. However, the thematic diagram does not reveal the *processing order*, that is whether cognition preceded emotional response. The theme 'things' related to objects of desire, desire itself (i.e. 'wanted'), the people involved and the decision occasion, e.g. 'sales' and 'place'. The theme 'buy', which is associated with the *post-decision* phase of FOMO, relates not only to looking at the subject item but also to the potential negative post-decision emotive outcome of 'regret' (i.e. buyer's regret), which is in close proximity. Thus, while the thematic diagram is consistent with the manual textual analysis, it provides three additional findings. First, it confirms the significance of *emotive* responses to a FOMO appeal in the pre-decision phase. Second, it suggests a *subordinate role for cognition* in the FOMO decision process and, third, it confirms the potentially negative emotive consequences of the post-decision phase.

Theory identification and response model development

Themes derived from these two independent textual analyses contributed to identifying relevant theory on which to construct a conceptual model of the FOMO response mechanism. The first two components of the model are the affective and cognitive responses, which relate to the topic of the FOMO appeal.

Order effects: affect versus cognition

Since Holbrook and Hirschman's (1982) and Hoch and Loewenstein's (1991) appeals for research into the role of emotions in consumer behaviour, there has been more research into how *affect* influences consumer choice (e.g. Garbarino and Edell 1997; Luce 1998; Luce, Bettman, and Payne 1997). Considerable debate has occurred as to whether affect or cognition occurs *first* in consumer choice. Zajonc (1980, 1984) posits that emotions precede choice, whereas Lazarus (1982) contends that cognitions are the first element of choice processes. According to LeDoux (1989), feelings can certainly inform cognitions and vice versa. The firm view of the FOMO focus group participants was that in FOMO situations, cognition *preceded* affect. This notion is represented in and supported by the thematic diagram, in that cognition is a distant concept from the emotive cluster – comprising the pre-decision phase.

Cognitive appraisal theory

Cognitive appraisal theory (CAT) (Bagozzi, Gopinath, and Nyer 1999; Johnson and Stewart 2005) supports both the participants' views and the thematic diagram because CAT proposes that a stimulus promotes an *initial* cognitive appraisal. As a result of this, an emotion is generated which in turn affects consumer behaviours including decision-making processes and post-purchase and/or consumption judgements. As such, CAT appears to have considerable explanatory value in relation to FOMO-type choice situations because *outcome desirability* is the basis of the decision-maker's dilemma. However, while CAT proposes that cognition precedes emotion, the general *order of processing* can be effected by individual and situational variables.

Individual variables may govern general cognitive processes and processing order, such as an individual's level of perceived risk, their need for cognition and preferred decision style. For example, the preference for a spontaneous style of decision-making can be independent of the situation. By contrast, other individual variables such as memory and specifically previous experience may give rise to an immediate affective reaction before any cognition takes place. For example, in a FOMO situation, the response to an invitation from an individual one abhors could induce instantaneous negative affect. It is essentially an approach avoidance reaction based upon memory, preceding events and often pre-established attitudes; therefore, it is important to take into consideration. Thus, while cognition may typically be followed by affect in FOMO decision-making situations, individual variables may trigger an immediate affective reaction.

Additional situational variables that may affect the decision phase include mood, the availability of cognitive resources and the social situation. Moods are generally regarded as being transient and having only a temporary effect on a person's disposition (<20 min; Gardner 1985). By contrast, the availability of cognitive resources was found to have a profound effect on decision-making. In cases where cognitive resources were limited, Shiv and Fedorikhin (1999) found that 'affective reactions rather than cognitions tend to have a greater impact on choice'; however, when 'the availability of processing resources is high, cognitions related to the *consequences* [emphasis added] of choosing the alternatives tend to have a *bigger* impact on choice compared to when the availability of these resources is low' (278). Such is the case with FOMO-type decisions where the *anticipated consequences* of a decision are paramount. What the consumer is doing when considering the *anticipated consequences* of an action is constructing an expected utility model that takes anticipated emotions into account (Zeelenberg et al. 2010; for a discussion, see Mellers et al. 1997). Given the challenge of making decisions in response to FOMO appeals, it appears the availability of cognitive resources is desirable. In addition, outcomes from the focus groups suggest that considerable cognitive resources are typically applied to considering the *potential consequences* of the decision alternatives. The availability of decision-making cognitive resources can also be affected by situational variables such as tiredness, alcohol and time pressure. Furthermore, social pressures may remove the opportunity for consideration of a response to a FOMO appeal, such as when pressed in public to accept an invitation.

Agency theory

Agency theory also offers some explanatory value because when individuals are faced with competing choices, they generally attempt to achieve the most desirable personal outcome. As such, those individuals are engaged in decision-making circumstances under risk or

uncertainty. At this point, readers with an econometric bent may see the work of Kahneman and Tversky (1979) as relevant. However, the objective of this research is to develop a consumer behaviour-based *behavioural response* model, rather than an econometric one. Therefore, the works of Frijda (1987); Roseman (1984) and Smith and Ellsworth (1985) are relevant because their research deals with the individual's *emotive* response. Collectively, this work suggests that the level of uncertainty inherent in a decision influences how an individual *feels* about it. In particular, 'high levels of uncertainty are strongly associated with emotions of *hope and fear*' [emphasis added] (Watson and Spence 2007, 497). Thus, the greater the level of *uncertainty* there is about the outcome of a decision situation, the greater the level of *fear* that may be felt and the greater the level of *hope* an individual will feel to achieve the best outcome. Bell (1982, 1985), Loomes and Sugden (1982, 1986) and Zeelenberg et al. (2010) posit that 'possible future emotions are taken into account when determining the expected utility of different courses of action' (531). It is generally accepted that when individuals make decisions, they seek to avoid *regret*, which is an unpleasant emotion.

On the basis of the preceding discussion, it is reasonable to conclude that both *cognitive* and *affective* elements should be included in any model of FOMO appeal response mechanisms. It is now appropriate to further explore cognitive issues that were identified in the analysis of the focus group data, which include opportunity cost, perceived scarcity and cynicism/trust.

Opportunity cost

The Oxford English Dictionary (accessed 18 December, 2015) defines 'opportunity cost' as 'the loss of alternatives when one alternative is chosen'. This is described by Buchanan (2008) as the evaluation placed on the most highly valued of the rejected alternatives or opportunities. Prior research suggests that individuals often neglect their opportunity costs (Becker, Ronen, and Sorter 1974; Jones et al. 1998), which are only considered 'when they perceived immediate resource constraints' (Spiller 2011, 595). However, individuals who are the subject of FOMO appeals, or who are 'reactive' and genuinely suffer from a 'fear of missing out', are only too well aware of the opportunity costs associated with rejected options, especially when social events are under consideration.

Larrick, Nisbett, and Morgan (1993) propose that individuals who consider opportunity costs tend to obtain more desirable life outcomes than those who neglect them. This suggests that individuals who habitually consider opportunity costs are trying to *optimise rather than maximise* their consumption, for example, they may seek to choose the *best* party to attend rather than to attend both. In the FOMO context, an individual is attempting to optimise their net benefit by considering two elements. The first is the perceived (i.e. *anticipated*) benefits inherent in taking their preferred option, whereas the second is the *anticipated* combined detriments caused by not taking the other option(s). Because the outcome of any choice is uncertain (i.e. the decision is made under uncertainty), the original decision could be regretted. In addition, the greater the level of uncertainty under which the decision is made, the greater will be the levels of hope and fear involved and the greater opportunity there may be for regret. These mechanisms explain why the respondents in this research were concerned with regret and attempted to avoid *future regret*.

Therefore, in response to FOMO appeals, it is likely that there will be an assessment of the likelihood of future regret (i.e. anticipated regret) when making the decision.

Regret and anticipated regret

Regret is a negative conscious emotional reaction to a past event or action, or at times relates to personal inaction. It is the feeling that occurs when an outcome is *imagined* as being worse than would have occurred, had one made a different choice at that time (Mellers, Schwartz, and Ritov 1999). Regret for things that one has done (i.e. regrets of commission) is more common than regret for things one has not done (i.e. regrets of omission) (Gilovich and Medvec 1995). Above all, regret is the result of a *past* decision. As such, on most occasions, one can do little to remediate the cause of a specific regret. However, sometimes, it is possible to remediate regrets of omission, although it is rare for specific lost opportunities. For these reasons, individuals generally seek to avoid regret where possible (Loomes and Sugden 1982, 1986; Zeelenberg et al. 2010). Marketers know this and the memory of regrets of omission, caused by over self-control in the past, may give rise to strong emotions (Keinan and Kivetz 2008). Emotions have powerful effects on choice (Mellers, Schwartz, and Ritov 1999); thus, among considerations regarding choices, individuals may *anticipate emotions*, i.e. 'anticipated affect' (Schwartz 2010) associated with a particular choice or course of action. Shih and Schau (2011), among others, affirm that anticipated regret is '... an emotion integral to consumer decision-making' (242). As an example, Ritov and Baron (1990) cite the case of parents avoiding vaccinating a child because of the slim chance of vaccination complications – the probability of which is much lower than that of death from the actual disease – the objective in this case being the avoidance of a future regret of commission. Thus, *anticipated regret* is often a component of an individual's deliberations and is particularly related to the felt discomfort of FOMO-initiated decisions. Furthermore, the reflection on past personal regrets, and the longer term regrets of other choices, may make consumers more likely to 'select indulgences' (for an extensive discussion, see Keinan and Kivetz 2008).

Scarcity

'Scarcity' refers to an insufficiency or a shortness of supply. Time is a scarcity-related concept and the perception of time as a scarce personal resource, in relation to discretionary activities, may force individuals to choose one activity over another. In the world of consumers, *perceived scarcity* is more common than genuine scarcity. The 'scarcity effect is a powerful social influence principle used by marketers to increase the subjective desirability of products' (Jung and Kellaris 2004, 739); hence, marketers often seek to establish *perceptions* of scarcity via claims of exclusivity, excessive demand or often, 'never to be repeated prices'. Perceived scarcity value, or perceptions of the uniqueness of an opportunity, may make 'missing out' appeals even more effective. Both commercial and non-commercial FOMO appeals are specifically designed to motivate consumers to seize a particular opportunity and are therefore a 'call to action'.

Post-decision or post-event outcomes

A FOMO response model would not be complete without consideration of post-decision, post-consumption or post-event outcomes, as acts of consumption are generally followed by some form of 'post' responses or judgements. It should be noted here that in contrast to the pre-decision and decision-making phases, situational variables have little relevance to

post-decision considerations. This is because whereas a decision may have to be made under time or *social pressures*, an individual is generally free to consider the ramifications of their choice for the rest of their life. The FOMO pre- and post-decision processes are similar in that they typically have both cognitive and affective elements, which may be affected by personal variables. Cognitive deliberations may include attribution judgements as to the cause/responsibility for the outcome. These judgements may be affected by personal traits, such as a tendency for inner (or outer) directedness. Similarly, other cognitive judgements may be made regarding the source and credibility of the FOMO appeal initiator, the potential consequences of FOMO decisions or preceding scarcity judgements.

Such judgements are not straightforward, as individuals may *reconstruct* their expectations in the light of an actual outcome – judgements with the benefit of ‘hindsight’ (Oliver 2014). This can happen ‘when consumers feel strongly, after the fact, that they *knew* a negative outcome would occur but *hoped* that it would not’ (239). Such is the case with FOMO when the decision is made under high levels of uncertainty and hope. By contrast, post-decision affective responses may range from happiness/joy (i.e. positive valence) through satisfaction to regret/guilt (i.e. negative valence). Satisfaction is an ‘appraisal-based emotion’ (Oliver 1980, 2014) resulting from deliberated consumer action, in which pre-consumption expectations were exceeded (and vice versa for dissatisfaction). Hindsight may also involve the re-visitation and reassessment of the ‘anticipated regret’ and other affective responses that preceded the original decision, while post-event cognitive and affective responses may lead to an individual’s judgements and learning from the FOMO-initiated episode. No matter how successful or enjoyable the taken option was, he or she may be unable to reconcile the regrets of omission due to not taking the other option (for a discussion, see Carmon, Wertenbroch, and Zeelenberg 2003).

Conclusions regarding externally initiated FOMO appeals

It was concluded that externally initiated FOMO appeals engender significant commercial, cognitive and emotional responses in recipients. Although there may be positive outcomes, such appeals appear to impose significant cognitive and affective load upon those who are targeted. The pre- and post-decision discomfort that is frequently felt may be explained by SDT, which is based upon psychological needs. Deci and Ryan (2008a, 2008b) contend that in all cultures, an individual’s well-being is based upon achieving competence and autonomy, which is consistent with their concept of *autonomous motivation*. Most importantly, externally initiated FOMO appeals are by definition a function of ‘external contingencies’ and therefore involve other entities, individuals and social situations. Because of this, responses and potential outcomes such as social approval, shame avoidance, ego-involvement and self-esteem are apparent. These elements comprise *controlled motivation*, as defined by Deci and Ryan’s (2008a, 182), which they posit as being *anathema to well-being*. This may explain the discomfort felt by FOMO appeal recipients and the often unsatisfactory outcomes of FOMO appeal-driven decisions. In the light of this realisation, the focus group transcripts were word-searched. It is noteworthy to highlight that in all of the focus groups, positive words such as ‘happy’ and ‘satisfying’ were not once mentioned in relation to the outcomes of FOMO appeal-driven decisions. Therefore, it appears that once an external FOMO appeal has been framed, the consumer is in a ‘damned if you do’ or ‘damned if you don’t’ situation, with fortuitous outcomes a relatively rare occurrence.

The FOMO response model

The preceding identification of response elements and the discussion of relevant theory provide a basis for the conceptual model of responses to a FOMO appeal. The FOMO response model diagram is shown as Figure 3, Appendix 2.

Pre-decision influencers

The model commences with the initiation of an external FOMO appeal. The consumer's responses to the FOMO appeal are affected by his or her trait-like personal variables, which may be considered as pervasive influencers of both pre- and post-decision judgements. Given any individual's personal susceptibility to FOMO itself, their responses will be affected by: their level of perceived risk, need for cognition, preferred decision style, propensity to consider opportunity costs, inner and outer directedness and their tendency to optimise or maximise consumption. The pre-decision phase is affected by situational variables of lesser duration, including social and time pressures, the range and complexity of decision options and availability of cognitive and time resources.

Pre-decision responses

Within this hierarchy of influencers, there is a range of possible cognitive and affective responses; however, the model does not assume which occurs first. Among possible cognitive responses are: appeal, source, credibility judgements, assessment of the goods, services or event options and their scarcity, level of uncertainty inherent in the decision and the consideration and anticipation of possible consequences of the decision and their importance. By contrast, the possible affective responses, which may vary in magnitude, include: approach/avoidance reactions based upon history, memory, previous positive and negative experiences, hopes and fears regarding decision outcomes and the potential range of emotions anticipated for various outcomes (often including anticipated regret).

Decision-making

Following the initial cognitive and affective responses, consideration is then given to the potential outcomes of the decision. These incorporate net assessments of the anticipated pay-offs and detriments, including potential resultant emotions associated with taking a certain course of action. Such considerations will involve weighing anticipated 'feelings' of 'missing out' versus participation in each of the options under consideration to arrive at a decision. However, a decision is not always reachable; the reasons for this include the availability of cognitive and time resources. If these resources are lacking or if the decider experiences indecision or procrastination, the passage of time and the occurrence of future events may either remove one of the options, eliminate the need to make a decision or it may mean that the event(s) pass with non-participation by the decision-maker.

Post-decision and post-event responses

Inevitably, some post-decision and post-consumption judgements will be made. Again, it is not inferred whether cognitive or affective responses occur first, although CAT suggests

that cognition may precede emotion. Post-decision emotive responses can be positive or negative and may include: joy, happiness and satisfaction, disappointment, regret or guilt or even emotive indifference to the outcome. Cognitive responses may include attribution judgements and reconsideration, or revision of the pre-decision assessments that led to the choice being made. These may include a revision of scarcity perceptions and the anticipated consequences of the overall decisions situation. Considerable interaction and iteration may take place between the emotive and cognitive post-decision judgements. Unlike the pre-decision phase, the time available for consideration of an outcome is unlimited. Collectively, these post-event processes may lead to global judgements and learning that may be applied in future FOMO situations as suggested by Keinan and Kivetz (2008).

Managerial implications

An improved understanding of FOMO appeal responses provides the opportunity to enhance the effectiveness of FOMO as a purchase trigger. While the current application of FOMO appeals is evidently successful during the pre-purchase phase, this research suggests that there are further opportunities to stimulate demand during the consumption and post-consumption phases. This is especially the case where social participation or group consumption and peer pressure may be present, and particularly so when services and experiential consumption are involved. Such an approach might also offset the evidently lower credibility of commercial FOMO appeals, as there is an opportunity to stimulate *during* and *post-event* feelings of 'missing out'. While the purchase opportunity may have passed the stimulation of regret, judgements in non-participants might make recipients more sensitive to FOMO appeals in the future, thus making these types of appeals increasingly effective in the manner suggested by Keinan and Kivetz (2008). Such post-event tactics are rarely seen in advertising; therefore, an enhanced multi-stage FOMO strategic marketing approach would seem to be the natural partner for the existing initiatory FOMO appeals.

Limitations

General limitations include the fact that exploratory research was conducted only in Australia; thus, the results may be more generalisable to culturally similar English-speaking countries than to others. Also, the sample was exclusively university students; while the age group matched the target market for FOMO appeals, the subjects' level of education is not typical of the general population and thus it may have affected the subjects' responses. To strengthen these findings, it would be beneficial to replicate the research with a more representative sample. Similarly, a cross-cultural exploration of FOMO appeals and responses among young consumers may also be warranted. Methodological limitations include the use of a single coder for the manual coding and the recruitment of samples from a single university.

Future research directions

FOMO appeals are already of significant commercial importance as they are an entrenched and successful form of marketing appeal among young consumers. Thus, the topic is a worthy area of academic research, which would benefit from the talents of researchers with a diverse range of skills. Further research in the area could add value to the FOMO concept, which has to date only been used to *initiate* demand. A better understanding of the phenomenon and

in particular the 'post' FOMO appeal response would be valuable. There are two major research domains that are particularly significant for extending this body of knowledge. Firstly, research in commercial contexts that have existing campaign tactics could provide an opportunity for real-life field experiments to test the effectiveness of specific associated promotional initiatives. The online environment particularly lends itself to testing the effectiveness of FOMO appeals by the random allocation of different 'treatments', for example, advertisements and stimulus materials. This would be most efficiently operationalised and controlled by working with retailers that already use FOMO campaigns extensively and who target student or youth markets.

The second major area for research is that of academia where laboratory experiments could be conducted to investigate three elements of FOMO appeals, specifically: (1) the types of FOMO appeal; (2) the initiators of the appeal; and (3) the products involved (i.e. the good or service). Such experiments would lend themselves to a factorial design. In addition, recipients of FOMO appeals could also be a focus of research or used as an additional variable for experiments. Thus, research could be undertaken into correlations between individual characteristics and the effectiveness of a particular appeal or a range of appeals. In which case, demographic, psychographic or personality-like factors could be explored such as the 'Big Five' personality types (Costa and McCrae 1992). Finally, analysis methodologies, such as Structural Equation Modelling, could be used to develop improved FOMO operational models. Additionally, since purchase decisions are the focus of FOMO appeals, it is especially recommended that the phenomenon be investigated using discrete choice experiments.

The preceding research suggestions deal specifically with FOMO appeals and responses, which are such somewhat mechanistic. However, there are wider aspects of FOMO appeals that could be researched. The first is the ethics of FOMO appeals. If some individuals are susceptible to fear appeals (i.e. are 'reactive'), the question remains: Is it ethical to advertise to them as they could be considered a 'vulnerable population?' In addition, FOMO appeals themselves can have a negative impact on some individuals. Furthermore, in terms of marketing philosophy, FOMO appeals could be regarded as maximising consumption in a similar manner to the post-war *sales concept*, which has now been discredited. These considerations continue the uniformly negative characterisation of FOMO and FOMO appeals. By contrast, it is also possible that FOMO has positive aspects, for example, positive benefits may accrue to individuals if a FOMO appeal prompts them to have new and positive experiences, which were previously denied due to excessive self-control. Since the FOMO concept is now well established both in the psyche of younger consumers and in the commercial environment, there are many avenues of research for academics to validly explore.

Disclosure statement

No potential conflict of interest was reported by the author.

Notes on contributor

Chris Hodkinson is a senior lecturer in the University of Queensland Business School. He is a Consumer Behaviour specialist, and marketing and social researcher holding both a research master's and a PhD in consumer behaviour. His academic consumer behaviour research interests include adventure tourism, impulse buying, consumer privacy, consumer behaviour in teaching and learning and elements of popular culture. Chris has also been consulted extensively for industry deriving marketing strategies from his consumer behaviour research.

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Appendix 1

Table 1. FOMO-related academic studies.

Author(s)	Research topic	FOMO-related behaviours/variables
Alt (2015b)	Link between maladjustment and social media engagement found to be indirect, with FOMO found to have a robust mediating role	Aberrant behaviour; social media engagement
Alt (2015a)	Investigation of the relationship between FOMO, social media engagement and academic motivation. High level of FOMO found to correlate with high social media engagement	Social media engagement; academic performance
Carbonell, Oberst, and Beranuy (2013)	Sociological, psychological and functional issues surrounding cell phone use and addiction. Cell phone characterised 'a catalyst of FOMO' leading to compulsive use	Cell phone addiction
Cheever et al. (2014)	Overuse of wireless mobile devices. Psychological dependency and anxiety assessed. FOMO discussed in relation to social media access deprivation	Overuse of wireless devices; dependency; anxiety
Chotpitayasunondh and Douglas (2016)	FOMO found to be an antecedent of concentrating on one's smart phone instead of talking to the person in company (phubbing). Internet addiction, FOMO and self-control predicted smart phone addiction	Internet addiction; 'phubbing'; self-control
Collins (2013)	FOMO predicted habitual/compulsive phone checking behaviour but did not predict the frequency of checking. Neuroticism and anxiety were found to be predicting factors of FOMO	Compulsive phone checking; neuroticism; anxiety
Elhai et al. (2016)	Correlation found between the level of smart phone usage and the level of stress (including FOMO) induced as a result of a period of smart phone deprivation. Problematic smart phone use was most correlated with anxiety, need for touch and FOMO	Smartphone usage; problematic usage; anxiety
Gökler et al. (2016)	Development of a Turkish version of Przybylski et al. (2013) FOMO scale	FOMO scale adaption – Turkish culture
Hato (2013)	Development of a FOMO-related scale to assess Compulsive Mobile Phone Checking Behaviour Out of a Fear of Missing Out	Compulsive phone-checking behaviour
Hay (2013)	Rural tourism trends: FOMO as a driver of millennials' selection of rural tourism pursuits	Selection of rural tourism destinations
Hetz, Dawson, and Cullen (2015)	Enquiry as to whether students studying abroad experience FOMO. FOMO was experienced but in addition students found to be attempting to induce FOMO in others	Overseas study; attempts to create FOMO in others
Kandell (1998)	FOMO as a driver of Internet use and Internet addiction	Internet use and addiction
Lai et al. (2016)	Neurobiological correlates of FOMO in response to social exclusion inclusion cues. FOMO associated with sensitivity towards social inclusive experiences	Sensitivity to social inclusion/exclusion
Przybylski et al. (2013)	The first study to create a scale to measure individual differences in FOMO and examine the behavioural and emotional correlates of FOMO in a sample of young adults	Development of FOMO scale
Riordan et al. (n.d.)	Precursors of student alcohol consumption investigated. FOMO found to be related to quantity of alcohol consumed and the number of negative alcohol-related episodes experienced	Alcohol consumption; negative alcohol-related experiences
Trnkova, Nguyễn, and Madeira (2015)	Mobile phone usage level found to correlate with FOMO-based anxiety	Mobile phone usage and anxiety

Appendix 2

	In-person	Impersonal
Commercial	Sales staff	Advertisement
Non-commercial	Significant other	Social media

Figure 1. Taxonomy of external FOMO appeal initiation.

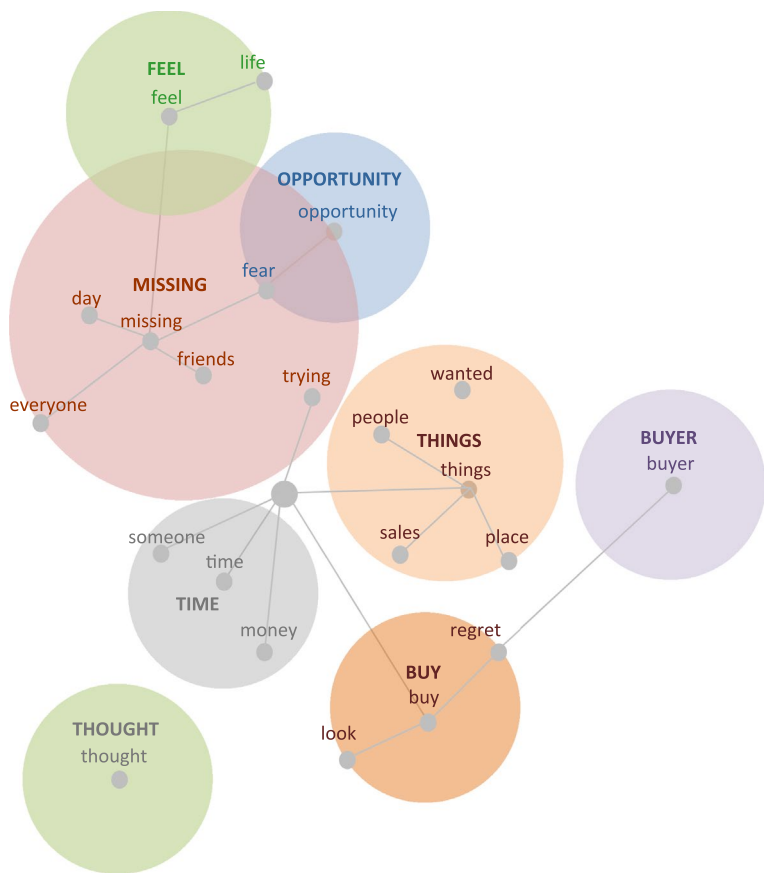


Figure 2. Leximancer thematic analysis of the focus group data.

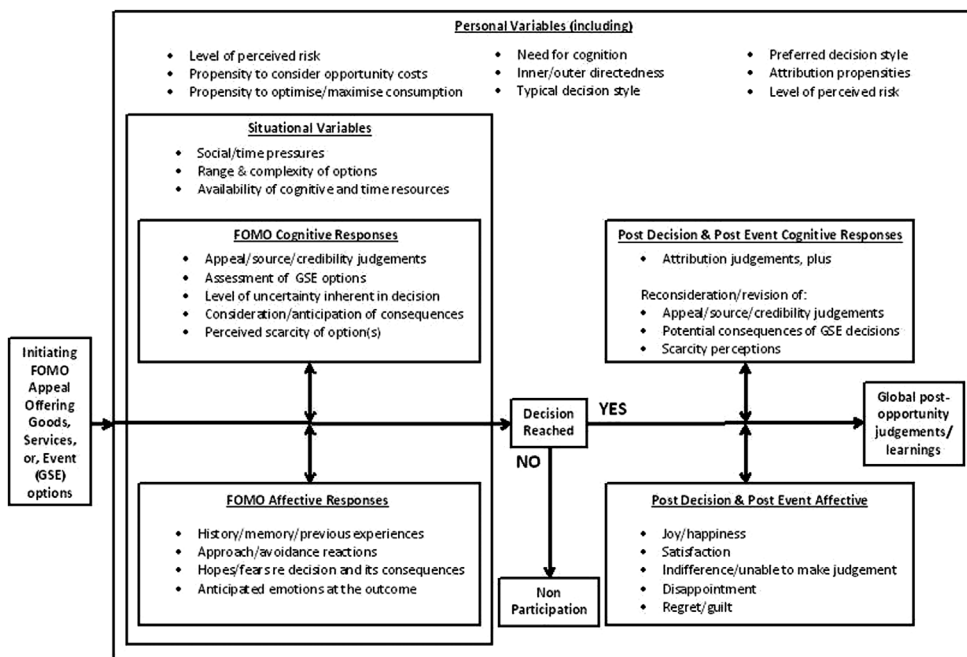


Figure 3. FOMO response model.