Implication of 'camera eats first' construct: Unraveling the potentials of digital images in social media on information sharing

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1. Introduction

Photographs play a significant role in everyone's life. It is constantly used to establish virtual connectivity among people and venture into the past memories of people, places, and experiences, with some cherishable feelings and stories associated with these. While portraying the importance of images in the tech-savvy lifestyle of the global citizens, Ferguson [24] rightly opined that "pyramids, cathedrals, and rockets exist not because of geometry, theory of structures or thermodynamics, but because they were first a picture—literally a vision—in the minds of those who built them" (p. 835). In parallel with information technology and scientific advancement, social media-based online communities have grown exponentially. Moreover, businesses have increasingly achieved high agility by securing up-to-date information on consumer behavior and the business environment [1]. Against this backdrop, it is vital to understand the usefulness of images as a source of information and a method of communication [22, 32]. Yet, contrary to the growing importance of images, academics and researchers have struggled to keep up the pace of exploring the application and implications of this construct.

In the post-millennium era, the world has seen a persistent rise in social media-based online communities (e.g., Instagram, Facebook, Twitter, YouTube) and their influence on consumers' lifestyles [16]. Customers representing Generation Alpha show more interest in what dining and meal options others are choosing [55 – 56]. Compared to the Millennials, Generation Alpha seems to interact more with the virtual world [41, 82] and use food as a community affair and a bonding tool. The uploading of food photos acts as a social glue and a means to remain aware of each other's eating-out experiences, altogether forming a communal bonding activity. On top of this, customers satisfy the psychological needs of esteem (taste), belongingness, and love by showing off the dishes they are enjoying. In the wake of ongoing digitalization, customers use their personal devices (e.g., smartphones, tablets, etc.) to display an endemic behavior of taking photograph(s) of their food items and posting those on their social media sites with a hashtag, e.g., #food, #foodporn #instafood and #yummy. These behaviour of contemporary consumers are clear evidence of the social media-based online communities, and their continued addiction to the camera eats first phenomenon.

The notion of the camera eats first is defined as the behavior in which people capture snapshots of their chosen food before eating and posting them on social media accounts with or without hashtags. The new generation (mainly Generation Alpha and partially other generations) loves to be connected with their social networks to increase their likeability and familiarity, fuelling a dramatic rise of the camera eats first phenomenon as a means to live in the modern world [48]. However, although camera eats first is an important and trending construct in the hospitality industry, no extensive and/or systematic research could be traced that may address questions regarding the constitution, measurement, and implications of the camera eats first construct. Extant literature has an apparent shortfall in these areas of knowledge in the restaurant marketing domain.

To understand the 'camera eats first' construct, this research relied on the elegance of the theory of framing [61, 64, 50], which states that communication is not static, but rather a dynamic process that involves three-stages— frame-building, frame-setting, and framing effects [61]. Given the nuances of this theory, we assumed that the mechanisms of the camera eats first construct can be frame-building (how photograph frames emerge), frame-setting (the interplay

between photograph frames and audience predispositions), and framing effects (information processing, attitudinal or behaviourial effects). We postulate that these components are integral to photograph framing concepts (the camera eats first). Arguably, no studies have considered the obvious research gaps of lacking a conceptual outline and a validated camera eats first construct scale. Without a validated scale, some researchers use a multidisciplinary scale to measure camera eats first related phenomena. Therefore, we need further research to define the camera eats first construct and validate its scale. We claim that a validated scale would strengthen this endemic phenomenon and provide restaurant managers with a new outlook for formulating impactful marketing strategies.

We make the novel prediction that the 'camera eats first' construct will be significant in the restaurant marketing domain for a wide variety of reasons, e.g., for developing earned media-based advertising strategies [18], comprehending visually-educated customers' perception of restaurant food visualization [63], and discovering customer to customer marketing opportunities [36] as well as improving the understanding of images and how it interacts within the information system [27]. This is important as images can provide information and knowledge to different disciplines and philosophical paradigms. Moreover, the construct will enable restaurant managers to formulate informed strategies to connect better with their potential customers, improving and upholding the sophistication of the gourmet industry and the capabilities of the information system to connect to their customers (or potential customers). In light of these considerations, it would be useful for a conscious restaurant manager to investigate the endemic camera eats first construct and develops informed strategies based on a validated scale. Such a scale would provide critical insight on how to not only serve the visually-educated customer better but also serve those missing to notice the influence of food pictures.

2. Theoretical background

Photographic content is the heart of the camera eats first construct. It is, therefore, necessary to conceptualise the meaning conveyed by the photographic content and the relationship between this meaning and the audience perception used to describe such meaning to measure the construct of a camera eats first [45, 71]. Moreover, the 'meaning' that a photograph portrays is person-specific. It is because how a photographer/audience describes the photographic content/message might be contrastive to the interpretation of another photographer/audience. Therefore, a photographer must decide the meaning of a photograph and who would be the target audience before snapping any picture of a food item. In the academic literature, the theory of framing provides the framework for understanding the meaning of photographic content [66, 70]. Conceptually, framing is the presentation of visual elements in an image which can provide an in-depth meaning, adding interest to the picture when the frame is thematically related to the object being framed [52, 54]. In addition, it can make an image more aesthetically pleasing and keep the viewer's focus on the framed content(s) [73]. It can also be used as a repressor to direct attention back to the scene [40].

According to the theory of framing, a photographer should be concerned with the perceptual meaning conveyed by the photographic content [53, 64], not with the bibliographic description nor with the median or genre exemplified by a particular photographic content. Furthermore, the elegance of the theory of framing draws that how content is to be presented to the audience (called "the frame") dramatically influences the choices audience makes about how to

process that content. Another view of the theory of framing is that the photographer's presentation of content cannot be either too positive or negative [39] but objectively equivalent information [41, 44]. For example, in the camera eats first phenomenon, a high-calorie dish could be visualized as "yummy" (a positive frame) or as "fatty" (a negative frame). Both scenarios present the same objective information on the calorie intake of the food. However, each presentation or content has a positive or negative valence. Thus, the theory of framing assumes that the audience responds differently to different descriptions of the same objective information, reiterating the objective equivalence of information, as emphasized by previous researchers [41, 44].

In light of the empirical importance, we use the theory of framing and attempt a scale development of the camera eats first construct, based on our investigation of how the photographer: (a) associates the meaning of a photograph [72] and (b) shares it on their social media account with a particular thought (meaning) in mind [46]. Although a substantial amount of research has been conducted in domains ranging from media to advertising based on the theory of framing [11, 62, 76], none of them viewed or interpreted the camera eats first construct through the lenses of the theory of framing. In this connection, we make the novel prediction that the camera eats first construct is a "frame", assuming that the construct consists of three dimensions, i.e., behind the photographic frame, in the photographic frame, and effects of photographic frames. Furthermore, we emphasise that a qualitative inquiry is essential in discovering the definition, dimensions, and items of the camera eats first construct in empirical studies.

3. Scale development: Process, findings, and discussion

We adopted a stringent scale development protocol to conceptualize and validate the psychometric property, fragmenting the protocol into several phases based on a mix of qualitative and quantitative methods. A summary of the scale development process is presented in Table 1.

Table 1. A summary of the scale development process

Phases of Scale Development Process	Details
Phase 1— Qualitative discovery of camera eats first construct.	▪ Session 1: 16 semi-structured interviews (for stages and themes identification) ▪ Session 2: 13 structured interviews (for items exploration) ▪ Thematic analysis of the transcripts revealed three themes and two sub-themes. ▪ A total of 69 items were captured through the interview transcript.
Phase 2—Construct definition and content domain.	▪ Triangulation of the theory of framing and the camera eats first in the literature were taken as "valid", and we used it (together with the literature) to indicate dimensions, sub-dimensions, and items for measurement of each stage and dimension. ▪ Theme-1, inspiration, Theme-2, aspiration, Theme-3, food photographic identity, Theme-4, influencer and Theme-5, tailor-made food.

Phase 3—Scale development • We obtained survey data-1 from 149 restaurant customers located in two states (Muscat and Ash-Sharqiyah) in the sultanate of Oman. • We obtained survey data-2 from 211 restaurant customers located in the Sultanate of Oman).	▪ Step 1: Item discovery. ▪ Step 2: Content and face validity. ▪ Step 3: Scale refinement. ▪ Step 4: CFA.
Phase 4—Nomological validity Data-2	▪ Two hypotheses formulation. ▪ The first-order and higher-order measurement model results provided confirmatory validity. ▪ The results suggest that all constructs meet the discriminant validity criteria. ▪ Both hypotheses were statistically significant.

3.1 Phase 1: Qualitative discovery of camera eats first construct

In the absence of the camera eats first construct, qualitative discovery is vital to obtain its conceptualization (definition, dimensions, and items) in light of the restaurant customers' viewpoints through extensive interviews. Interviews can better delve into informants' thinking and voices by probing them individually or in a group [6]. We conducted interviews in two subsequent sessions and adapted this two-episodic procedure to enable informants to become acquainted with the subject area for semi-structured interviews (Session 1, for stages and themes identification) and to discuss matters that they thought were relevant. Some unanswered questions derived from semi-structured interviews were carried out in the structured interviews (Session 2, for items exploration), which provided more apparent answers to key unknown questions during the semi-structured interviews. A total of 29 individual interviews comprising 16 semi-structured interviews in Session 1 and 13 structured interviews in Session 2 were conducted to gather rich qualitative data. We closed the data collection once we reached saturation at the 29th interview [31]. Table 2 highlights the informants' profiles.

Table 2. The informants' profile

Interviewees	Gender	Age (years)	Description
			Session 1: semi-structured interviews
1	Female	29	Teacher of a school.
2	Female	37	Government staff whose husband works in the private sector. They have got five kids.
3	Male	23	He is working at airports.
4	Male	34	The father of three children whose wife is employed.
5	Female	27	An unmarried front-line manager.
6	Female	21	She is studying bachelor's degree in entrepreneurship and is involved in the student union.
7	Male	40	He and his wife are both an engineer and a manager.
8	Female	25	Fresh graduate.
9	Male	41	He is serving as an HR manager of a local hotel chain.

10	Female	64	She is a widow with seven kids living in a small city with her daughter.
11	Female	22	House maker.
12	Male	54	He is a freelance photographer
13	Male	28	A café manager
14	Female	34	A college lecturer has five children whose husband is an educator.
15	Female	61	Six children's mother, lives in her own home. She owns a little business with her husband.
16	Male	41	A salesperson who lives with a family of four.
			Session 2: 13 structured interviews
17	Female	24	An unmarried junior executive lives with her parents.
18	Female	27	She works for a tourism company.
19	Male	32	A little shop owner living with a younger sister and his parents.
20	Male	48	A surgeon who lives with a family of four.
21	Female	29	Three children's mum. She manages a food business.
22	Male	33	He and his wife are managers of a company.
23	Female	34	Housewife with four children. The husband is a businessman.
24	Male	33	Holder of a bachelor's degree who works for the government service.
25	Female	55	Seven children's mother, four of whom live with her.
26	Male	44	He's in the restaurant business.
27	Female	28	A private service holder.
28	Male	61	Businessman.
29	Female	21	Undergraduate student and doing part-time services.

3.1.1 Session 1 (semi-structured interviews): Process and findings

In Session 1, each of the 16 semi-structured interviews lasted about one hour and ten minutes on average. Seven interviewees were women, and their ages ranged from 29 to 61 years. As a frame of reference, informants were asked to think about dining in a restaurant (e.g., delicious food served in a lookalike dish or tailor-made as per the order) and imagine photographing food items there and posting and/or observing those on their social media accounts (e.g., #food posts). While probing, informants were also asked whether they like to take a photograph of the food before eating, and if they say 'yes', why they prefer, or if not, then why they prefer not to do it. However, all our informants were found to take photographs of their food before eating.

Throughout the qualitative discovery sessions, a phenomenological approach was used. Discussions were mainly led by the informants, and moderations were done by the researchers when probing, intervention, encouragement, or summarization, where deemed necessary. Although the transcripts were chaotic, they were informative in nature, and the sequence of discussion and themes was developed through a painstaking approach of reviewing and collating thematically. In the thematic analysis of the transcripts, the motivations of the informants' camera eats first behaviour was recorded. For example, one of the informants opined: *"Once I took pictures of food before eating… while I went to Rozna (a famous traditional restaurant in Muscat). Later, when I meet my friends, they already knew I visited Rozna".* The analysis further revealed five themes (Theme-1, inspiration), such inspirations provoke them to inform others about their aspiration through sharing the photographs (Theme-2, aspiration), and ultimately a photographer

constructs their identity through photograph sharing (expressive) behavior (Theme-3, food photographic identity). Theme-4, influencer, and Theme-5, tailor-made food. Altogether, a total of 69 items were captured through the interview transcripts, and the overall outcome was used to design a structured interview for Session 2.

3.1.2 Session 2 structured interviews process and findings

To explore the excerpts (and potential items) of each theme developed through Session 1, we conducted a few structured interview sessions (Session 2). In Session 1, each of the 13 structured interviews took between 40-60 minutes. Six of the participants were women aged between 18 and 68 years. The semi-structured interview transcripts (Session 1) were analysed in three sequential stages, i.e., frame-building (how photograph frames emerge), frame-setting (the interplay between photograph frames and audience predispositions) and framing effects (information processing, attitudinal or behaviourial effects), and, as a consequence, three themes and two sub-themes as well as 69 items of the camera eats first phenomenon emerged. In Session 2, we asked participants about the relevance of these items (69) for each stage and the dimension of their camera eats first behavior. Any other relevant aspects that were not found in the previous interviews were then identified and included for further analyses. For example, the interview excerpts revealed that the camera eats first behaviour helps informants pick a memorable experience, exhibiting self and/or influencing other people's choice of food and restaurants in their social network.

To minimize the possibility of the significance of the perception of informants being distorted, we discouraged exaggeration from a pre-conceived theory (as suggested in the principles of thematic analysis). We retained the themes and sub-themes found (dimensions and items) in Phase 1. We have also integrated the extracts from Phase 1 into Phase 2 findings (literature review) to make comparisons and ensure clearness and sequence.

3.2 Phase 2: Construct definition and content domain

Based on Phase 1, we came up with 69 items of the camera eats first construct under 5 dimensions (themes) and items, ensuring that these are consistent with the accepted conceptual understanding (i.e., taking the triangulation of the theory of framing and the camera eats first in the literature as "valid"), and then used these (together with the literature) in Phase 2 to indicate dimensions, sub-dimensions and items for measurement of each stage and dimension. For example, if informants noted that the camera eats first is to help them dominate others' choices, and if this notion is also supported in the literature (e.g., aspiration), we include it. At this stage, we define a camera eats first phenomenon as "the process of being mentally stimulated to pursue food photography with the hope or ambition of being recognized by the social media community". Overall, the camera eats first construct, consisting of five dimensions, is verified in this study's triangulation phase (between Phase 1 and 2). In addition, the items "verified" through this triangulation are validated through the statistical investigation in Phase 3.

3.2.1 Dimension 1: Inspiration

In Dimension 1, we relate our findings with the concept of 'inspiration' in the literature. The general concept of inspiration is breathing in or infusing some idea, providing a purpose into the mind; the suggestion, awakening, or creation of some feeling or impulse, especially of an exalted kind [65]. In the literature, it is asserted that people are

inspired when a sense of beauty, truth, or divine moves them to pursue a goal more important than the mundane concerns that often occupy their minds [13]. Inspiration also implies motivation, which may involve the energization and direction of behavior or transcendence of the ordinary preoccupations or limitations of human agency [59]. Moreover, inspiration is evoked rather than initiated directly through an act of will or arising without apparent cause [57].

Many informants said they could not control their excitement if well-decorated food were presented before them. A participant mentioned, *"taking food photographs is most likely an attempt to capture a moment, not just a photograph of food that's generally highly visually appealing, but taking and sharing that photo can help me remember other things about that moment, such as the aroma, the texture, the decoration, the atmosphere, the people I've been with, the emotions I've felt... all so fleeting. It's like a way of remembering."*

Another informant talked about his experience: *"I am curious why a lot of people take photos of their meals before they eat. I have seen that they are always eager to select the best location with a bright filter to render the food image beautiful. In my opinion, the key reason behind such behavior is that they would like to share beautiful pictures on their social media platforms, such as Instagram or Facebook, so that they can communicate about their life with each other in a more glamorous manner... most of the time I have also seen that they choose to do so rather than directly speak to a companion across the table. I feel that by simply sharing positive things on Instagram or Facebook, they mislead themselves [to others] that they live a beautiful and fulfilling existence without mishap or personal tragedy and thereby make their "underprivileged friends" feel more depressed than they already are… However, there are still many people who just take simple pics of their food to record daily life."*

By linking qualitative findings and the inspiration concept, this study conceptualises that for many people, food photography is a suggestion, awakening, or creation of some feeling or impulse, ultimately inspiring them to take photographs of their food before eating. Therefore, photographic inspiration is defined as an unconscious burst of creativity in a food photographic endeavor.

3.2.2 Dimension 2: Aspiration

We argue that photographer expressions are usually evoked through inspiration (and aspiration). In Dimension 2, we, therefore, relate our findings with the concept of 'aspiration'. According to Barry [10], the word 'aspiration' derives from the Latin aspirate, which means 'to have a longing for' or 'to breath'. In line with these meanings, modern English defines aspiration as the hope or ambition of achieving something [9]. Aspirations are, therefore, broad, deep-seeded, and passionate ambitions [25].

Some informants opined about expressing their feelings (of achievement) to others (i.e., aspiration) once they have "decorated" their food (i.e., inspiration). For example, an informant shared her experience of achieving something based on food photography and posting behavior: *"There's a new seafood place. After seeing the photos, one of my friends asked me when I wanted to eat there again and, after telling her, she offered to go with me another time. It's so cool! Who knows… showing off what I eat may convince someone to come and eat with me on my next trip!"*

By linking qualitative findings and the aspiration concept, this study conceptualises that many people do not only inspired by food and photographic inspiration but also like to express their aspirations. We define aspiration as the hope or ambition of achieving something.

3.2.3 Dimension 3: Food photographic identity

In Dimension 3, we associate our findings with the concept of 'self-identity', which is portrayed as an individual's significant attitude and behavioral determinant [29, 69]. Biddle [12] defined self-identity as the outstanding part of a person's self that represents "the labels people use to identify themselves" (p. 326) through a particular action, i.e., snapping and posting photos of food on social media in this study.

In the interview, informants revealed a tendency to use food photographs and, through this, establish their passion as a form of identity. Quite relevant to the process of developing self-identity, one participant mentioned: *"I was struggling to develop my culinary abilities, so I began taking pictures to keep track of what I was making, I spent hours on dishes, I learned different methods, of course, I couldn't hold the finished result as a tracker in all my attempts, so I took photographs to remind myself about what I was doing and how I could improve. A few years down the road, it's letting me realize how much perfection I've made. I am food passionate and fond of creating new recipes and making them look appetizing… after all, you have dinner with your eyes too… Later, I realized that I should share my food passion with some of my friends who are active on social media. It gives me great pleasure to share what I like most with people who are interested in and inspired by food photographs published by other artists."*

By linking qualitative findings and the self-identity concept, this study conceptualises that for many people, food photography is a part of their identity. We define food photographic identity as "the extent to which food photographic passion is a part of someone's identity."

3.2.4 Dimension 4: Influencers

An influencer is someone who has the power to influence others in society because of his or her authority, knowledge, position, or relationship with his or her society. For example, according to Demmers [20], "information from fellow consumers engenders high levels of trust and has a substantial influence on the receiving consumer's perceptions and behavior, brand posts that are liked, shared, or commented on by fellow consumers" (p. 56). In our interview transcript, we found that many informants try to influence others through food photography. For example, an informant stated, "*I never miss taking pictures of food that I believe is an unknown restaurant to my friends. I love to recommend my opinion to others*". By linking our qualitative findings with the literature; we conceptualize that influencer effects on photographic inspirations. The operational definition of an influencer is "an individual who has the potential to affect the actions or views of others".

3.2.5 Dimension 5: Tailor-made food

The concept of tailor-made is "made specifically for someone" to align with someone's self-uniqueness. Significant research indicates that self-uniqueness affiliation and societal validation are powerful, fundamental, and extremely

prevalent motivations for human beings. One of the most significant psychological motivations for social media use today is the demonstration of self-uniqueness [3]. The social media setting is designed to enable users to present self-uniqueness in a way deemed important to self but also more socially acceptable and favorable to the community [15].

Many customers order tailor-made foods to fulfil a personal desire. Some informants revealed that they usually order tailor-made cuisine and take pictures of the food items to establish their self-uniqueness and get the social media community's approval, as argued by Luke [47]. A participant opined: *"I usually take pictures of personally selected low-calorie meals and usually share these photos on Instagram… I expect at least someone would appreciate my fight against unhealthy diet".*

Based on the outcomes of the qualitative survey and the literature review, we argue that tailor-made food should influence photographic inspiration. Thus it is one of the sub-dimensions of the camera eats first construct. We hence define tailor-made food as "shared feelings of self-uniqueness by purchasing tailor-made food in which scarcity or rarity implies that only a few people can own them".

3.3 Phase 3: Scale development

We explore the camera eats first to be a five-dimensional construct and second, the methods recommended for scale development research by previous researchers [17, 21]. Phase 3 entails four steps: item discovery, content and face validity, scale refinement, and confirmatory factor analysis (CFA).

3.3.1 Step 1: Item discovery

Initially, a pool of 69 items was identified based on the qualitative discovery, literature review, and five dimensions of camera eat first, i.e., photographic inspiration, photographic aspiration, food photographic identity, influencer, and tailor-made food. In this step, we have decided to add the most representative items to the original scale. After initial screening, we deleted eight items (laden, dual, major, and supposed questions) and deduced a final list of 61 items for further validity and reliability assessment.

3.3.2 Step 2: Content and face validity

The 61 items (for content and face validity) were assessed by five marketing specialists (judges) [5]. We kept the items recommended by at least three of the five judges. For example, three judges recommended item improvements during the first round. After incorporating the recommended changes, we re-submitted a revised version of the items to all judges for further evaluation. Finally, 10 items were deleted, and 51 items were retained for further validation and refinement.

3.3.3 Step 3: Scale refinement

In line with the current scale development practice [5], pilot testing of the items should take place with 100 to 200 samples after an item pool obtains the content and face validity, as per the approval of the specialists in the field. Accordingly, we used the convenience sampling method and collected data-1 from 149 restaurant customers located

in two states (Muscat and Ash-Sharqiyah) in Oman. Data came from web-based (google form) electronic questionnaires. The data was analyzed using SPSS on a 5-point Likert scale.

We discarded four respondents because of incomplete responses, resulting in 145 questionnaires retained for analysis. The data-1 was tested and confirmed for normal distribution using the K-S test. The final sample size was 142 (as 3 responses were removed as an outlier). After meeting normality assumptions, we carried out item analysis on the 51 items through observation of corrected item-to-total correlation. We deleted 3 items because of low corrected item-to-total correlations (below 0.30) and finally left with 48 items.

We used the Kaiser–Meyer–Olkin (KMO) to test for sampling adequacy, which suggests high values (close to 1.0) as desirable. The results show a KMO value of 0.925, which is considered acceptable for factor analysis. Bartlett's test of sphericity suggests a small value (less than 0.05) of the significance level, indicating that factor analysis may be useful with the data. This study results in *p*-values of 0.000, confirming that the correlation matrix is not an identity matrix. Thus, it was established that we could proceed with exploratory factor analysis (EFA), and the results can be trusted [68].

Following previous research recommendations [4, 70], we conducted an EFA to explore the factors. On the remaining 48 items, we carried out a principal component analysis (PCA), the recommended method for identifying a minimum number of factors while representing the maximum portion of the total variance in an original set of variables [8]. The factors were rotated through oblique rotation (Promax with kappa 4). The first rotated factor solution suggested 8 factors and a cumulative variance of 71.80%. However, 8 items displayed low factor loadings (<0.50), including five items having cross-loading, and therefore were deleted from further analysis, leaving only 40 items for the subsequent analysis.

We ran a second PCA on the remaining 40 items, loaded onto 7 factors, accounting for 71.22% of the cumulative variance. The pattern matrix again identified 10 low factor loadings, including 6 cross-loading. Hence, we deleted these 10 problematic items.

In the third PCA, the remaining 30 items finally loaded onto five factors (Factor 1: 3 items for tailor-made food with factor loadings ranging from 0.702 to 0.857; Factor 2: 9 items for inspiration with factor loadings ranging from 0.677 to 0.977; Factor 3: 5 items for an influencer with factor loadings ranged from 0.778 to 0.858; Factor 4: 6 items for aspiration with factor loadings ranged from 0.702 to 0.916; Factor 5: 7 items for food photographic identity with factor loadings ranged from 0.571 to 0.938), representing a cumulative variance of 73.63%. All the items represented significant standardized regression estimates (factor loadings). Cronbach's alpha for tailor-made food was 0.716, inspiration was 0.952, influencer was 0.881, aspiration was 0.930, and food photographic identity was 0.940 (see Table 3. EFA). Following Bryant and Yarnold [14], we subjected the covariance matrix of the 30 items to CFA.

Table 3. EFA

Constructs	Loadings	Cron
Tailor-made food		
DU2	0.857	0.716
DU4	0.702	
DU5	0.795	
Inspiration		
SNII1	0.812	0.952
SNII2	0.997	
SNII5	0.814	
Pla1	0.776	
Pla3	0.759	
Pla4	0.677	
Pla6	0.819	
Pla7	0.620	
ITF1	0.730	
Influencer		0.881
OL1	0.781	
OL3	0.781	
OL4	0.778	
OL5	0.858	
OL6	0.779	
Aspiration		0.93
ITF4	0.782	
ITF5	0.901	
ITF6	0.916	
ITF7	0.702	
ITF8	0.810	
ITF9	0.749	
Food photographic identity		0.94
Ex1	0.571	
Ex2	0.614	
Ex4	0.796	
Soc1	0.869	
Soc2	0.835	
Soc3	0.938	
Soc4	0.911	

3.3.4 Step 4: CFA

In CFA, we assessed the composite reliability (CR), average variance extracted (AVE), discriminant validity (square root of AVEs), and model fit indices by using the AMOS software. We collected data-2 from 211 restaurant customers located in two states (Muscat and Ash-Sharqiyah) in Oman, replicating the survey procedure employed for collecting data-1. CR of the constructs was satisfactory, with values above 0.700. The results show that CR values for all constructs except tailor-made food were above 0.700. Tailor-made food scored marginally low at 0.698, thus accepted. We still retain the tailor-made food dimension as the recommended threshold value of AVE for each construct is

0.500. The AVEs for one construct (tailor-made food = 0.449) were slightly lesser than the threshold, while the AVEs for the other four constructs were adequate.

Nonetheless, we still retain the construct, as the discriminant validity is the extent to which each construct differs from other constructs in the model. To meet the Fornell–Larcker discriminant validity criterion, the square root of the AVE for each construct should be greater than all of the correlations among the constructs and the other constructs in the model. In the CFA results, the square root of the AVE for each factor was greater than the inter-construct correlations, confirming satisfactory discriminant validity. These results satisfy the confirmatory and discriminant validity of the scale (see Table 4).

Table 4. CFA

Construct	CR	AVE	Aspiration	Inspiration	Tailor-made food	Influencer	FPI
Aspiration	0.932	0.698	0.835				
Inspiration	0.949	0.672	0.817	0.820			
Tailor-made food	0.698	0.449	0.432	0.480	0.670		
Influencer	0.900	0.647	0.559	0.667	0.541	0.804	
FPI	0.931	0.657	0.656	0.701	0.402	0.510	0.811

*FPI= Food Photographic Identity

The 5 factors, correlated using maximum likelihood extraction, yielded an acceptable model fit [P-value = 0.000; RMSEA = 0.089, IFI = 0.888; CFI = 0.888; NFI = .832; RFI = 0.813; ChiSq/df = 2.647]. The overall CFA results are summarized in Table 4 and illustrated in Figure 1.

3.4 Phase 4: Nomological validity

We develop a conceptual framework to test the nomological validity of the scale. In the framework, we conceptualized: (a) the desire for self promotion has a positive and direct effect on the higher-order camera eats first construct, and (b) the higher-order camera eats first construct has a positive and direct effect on conspicuous consumption.

3.4.1 Self-promotion

Self-promotion refers to how individuals are intentionally attempting to portray themselves to others as highly competent [51]. As people promote themselves, their main motive is to be regarded by others as smart, knowledgeable, or creative [62]. Self-promoting customers actively try to make others aware of their accomplishments, show certain accomplishments (where possible), demonstrate their abilities or skills, and/or inform others that their lives are better [26].

3.4.2 Conspicuous consumption

Conspicuous consumption is the practice of buying goods or services for public display of wealth rather than for basic needs [37], manifested through social media that accentuates the snob appeal, prestige, or status of individuals' possessions or experiences, or that sometimes implicitly or explicitly informs others, e.g., "I/we can enjoy these things … and often you do not" [26]. Although past researchers found direct relationships between self-promotion and conspicuous consumption, we argue that self-promotion may not be enough to influence conspicuous consumption in a restaurant setting, rather, self-promotion influences camera eats first and ultimately increases conspicuous

consumption. Thus, to provide the nomological validity of the newly developed camera eats first scale, we developed the following hypotheses:

H1: The desire for self-promotion has positive and direct effects on camera eats first.

H2: Camera eats first positively and directly influences conspicuous consumption.

3.5 Research design

This study used datasets (data-2; n=211) for nomological validity. Data-2 was the same data that was used for the CFA. This study used a higher order of the camera eats first construct to evaluate the nomological validity of the camera eats first scale. The 5 first-order dimensions sum algebraically to generate a higher-order camera eats first scale, which suggests a reflective-reflective model specification. Moreover, this study used a covariance based structural equation modelling (CB-SEM) data analysis approach and employed AMOS v21 tools to investigate the nomological validity in a hierarchical sense [33 – 34, 43]. CB-SEM is an extensive multivariate statistical analysis approach that allows each of the relationships between the constructs to be analyzed simultaneously in the conceptual model, including measurement and structural models. We used two-stage CB-SEM evaluations: measurement and structural models [67].

4. Findings

4.1 Higher-order measurement model

The first-order measurement model for nomological validity is the same as CFA, exhibiting sufficient convergent and discriminant validity. The composite reliabilities value for camera eats first was 0.875, the desire to self-promotion was 0.862, and conspicuous consumption was 0.884. The AVE of each construct again exceeded the recommended threshold of 0.500 (see Table 5).

Table 5. Higher-order measurement model

	Convergent validity			Discriminant validity		
Variables	Loadings	CR	AVE	Camera eats first	Conspicuous Consumption	Desire for self-promotion
Camera eats first		0.875	0.592	**0.769**		
Tailored_food	0.521					
Photo_aspirations	0.898					
Influencers	0.691					
Assertion	0.843					
Photo_identity	0.833					
Conspicuous consumption		0.884	0.658	0.749	**0.811**	
CC1	0.701					
CC2	0.808					
CC3	0.886					
CC4	0.839					
Desire for self-promotion		0.862	0.562	0.619	0.514	**0.750**
DSP1	0.758					
DSP2	0.892					
DSP3	0.838					

DSP4	0.604
DSP5	0.611

Furthermore, Table 5 shows that all the constructs hold acceptable discriminant validity. The findings show that the higher order factor loadings of camera eats first and other constructs: self-promotion, and conspicuous consumptions were high and statistically significant. Moreover, the 5 higher-order factors, correlated using maximum likelihood extraction, yielded an acceptable model fit [P-value = 0.000; RMSEA = 0.094, IFI = 0.830; CFI = 0.828; NFI = .759; RFI = 0.742; ChiSq/df = 2.848] (see Figure 2).

4.2 Structural model

The outcomes of the structural model show satisfactory explanatory power. To establish the significance of the parameter estimates, we computed the p-values (Table 6).

Table 6. Structural model

Hypotheses			Path coefficient	S.E.	P	Decision
H1: Camera eats first	<---	DSP	0.617	0.092	0.001	Accepted
H2: Conspicuous	<---	Camera eats first	0.805	0.103	0.001	Accepted

Because directional hypotheses were offered, we conducted two-tailed significance tests (p-value > 0.05). As a result, the path coefficient of the H1 was 0.617 with a p-value of 0.001, whereas the H2 path coefficient was 0.805 with a p-value of 0.001. This result was acceptable and thus accepted (Figure 3).

5. Conclusion

In this research, we draw attention to camera eats first as an understudied construct in restaurant marketing research that holds the potential to support restaurant managers in several ways, e.g., (a) fostering earned media-based advertising strategies, (b) comprehending visually-educated customers' perception on restaurant food visualisation, (c) discovering customer to customer marketing opportunities, and (d) providing a means of utilizing customer experiences (valid testimonies) as part of the story telling (photography) for the restaurants.

We define the camera eats first as the process of being mentally stimulated to pursue food photography with the hope or ambition of being recognized by the social media community. As such, the camera eats first holds a unique position at the very beginning of the customer journey that links the activating reception of a new idea to pursuing a consumption-related goal. Due to the dramatic increment of the social media vogue, this understanding of the camera eats first construct is becoming increasingly important from a restaurant marketing perspective [7].

Based on our four-phase studies, we developed and validated a 30-item and 5-dimensional scale to measure the camera eats first construct. Empirical results consistently find high convergent and discriminant validity of the scale and show its unique position in a nomological network of related restaurant marketing constructs. We concluded that the scale

satisfies all required criteria for newly developed scales and has the potential to add new insight to hospitality marketing knowledge. We hence offer the first comprehensive discussion of the camera eats first construct in hospitality marketing settings—by introducing a contextualized conceptualisation of camera eats first in restaurant marketing that is compatible with recent conceptualisations of social media vogue.

5.1 Implications

The main contribution of this study is the development and validation of a 'camera eats first' scale that captures how inspiration, aspiration, food photographic identity, influencers, and tailor-made food can affect 'camera eats first'. Supported by the nomological validity, the study also shows that a restaurant aiming to facilitate more interaction between the food served, and consumers can be achieved through the presence of conspicuous consumption and desire for self-promotion. Furthermore, such strategies can inspire photographers to associate the meaning of a photograph while sharing photos on their social media accounts [60]. Finally, we believe that this scale provides an opportunity for a quantitative study of the integration of 'camera eats first' into restaurant strategies.

This research offers a comprehensive understanding of camera eats in terms of structure and dimensionality. It also develops a valid, reliable, and parsimonious scale for measuring camera eats first. With social media use as a ubiquitous part of life for Generation Alpha [58], it becomes extremely crucial to understand how Generation Alpha's subjective experiences with their food eating behaviour and social media. Their cognitive, emotional, and behavioral experiences can be exacerbated through social media. We argue that given the high levels of visualness, publicness, accessibility, and convenience of the photographs and information systems, the camera eats first suggests a new strategy for crafting demand and opportunity to promote hedonic consumption and story telling through photographs. In this connection, the importance of studying the camera eats first scale for restaurant managers can be outlined below:

First, this study provides an initial exposure to scale development, using methodological rigors considering the respondents' views in the restaurant industry. It is vital to consider the most comprehensive and robust items on the camera eats first scale, obtained through analyses from the qualitative results, construction of definition, item refinement, nomological validity, and multi-method validation with the target population. The final scale provides all the accepted properties in scale development and validation.

Second, scale development is essential in assessing constructs and variables in the camera eats first, which is vital for assessing self-reported variables. Third, our study provides a robust examination of the reliability of a scale (repeatability and minimized measurement error) through internal-reliability tests (convergent, discriminant, and nomological validities).

Third, the scale can ultimately be used as a standard measurement for camera eats in a restaurant behavior, following a detailed sequence and stages (theory of framing). With the magnitude of the problems faced in the restaurant marketing areas, there is a direct need for solutions at scale. When a proper scale is developed, it enhances the potential for impact and common understanding of problems for broader awareness.

Fourth, customers usually use the #food for the pictures of food that they share on their social media accounts. The most useful aspect of these #food posts is that customers add restaurant locations and tag the restaurant where their #food photos were taken and shared. Thus, these #food posts create food and restaurant promotion as a means of earned media. Earned media is defined as the unpaid coverage of a brand by third-party entities such as customers [42]. In this regard, enormous earned media-based advertising strategies can be uncovered after carefully studying the camera eats first construct [20].

Fifth, due to the proliferation of the camera eats first phenomenon, many restaurant managers need to consider their customers' concerns on food visualization (e.g., how food on the table, background, and the light will appear on #food posts) while setting up a restaurant. Therefore, visual environmental factors need to be considered while designing a restaurant, e.g., lighting and things like an Instagrammable wall or background [54]. Consequently, we argue that only after carefully studying a camera eats first construct, restaurant managers would be able to understand their customers' concerns regarding #food posts, hence offering value efficiently to visually-educated customers.

Sixth, social media vogue, after all, have made customer hyper-visual individual [2]. The evidence to date suggests that the mere sight of delicious food stimulates the appetite [38]. Other studies on healthy young men have documented that the amount of the neurosecretory protein hormone ghrelin in the blood increases due to visual stimulation through images of food [23]. However, research has not verified the theoretical or practical understanding of how a customer could make other customers or friends want to try similar food or feel hungry by showing them #food posts.

On top of that, when we examine the importance of the dimensions within the camera eats first constructs, it is time to assert that in today's world, with the high demand for uniqueness, individuals are excited about tailored food. They believe that through their announcement on their social media, they will be acknowledged as individuals who are seen to be pursuing newness and uniqueness. One of the important considerations here is the motive to identify oneself as a cutting-edge, trendy, and highly tasteful individual. The images can act as aspirations or influencers to others, which could be related to how individuals perceive the uploaded images as standards for individual evaluations [35].

The camera eats first will further indicate the assertations made by individuals to engage with others [30], which serves as part of social engagement that is interactive in its own unique way, that cut across not only the social circles of active and current social circles but also penetrating to the passive social circles [16]. The assertions through the camera eats first build into a thousand messages to these social circles, which has become the "interaction platform" for many (and to know the updates).

In some contexts, the images from the camera eats first can portray individuals' identity, how individuals think and communicate about the food they eat, and the perception derived from the food, ambience, and context. The linguistic annotations through the text captions and searchable hashtags serve as the visual contents of the image, which are used to express the individuals' affective stance. The endorsement by each social friend or follower will be indicated by the "likes," which will also leverage the individuals' popularity.

The direct messages from the camera eats first could indicate self promotion. Through images, it becomes an indirect communication to the social circles on their updates, changes, and preferences [38]. It becomes a consistent voice

online. In other words, through the images, individuals communicate the good times and the luxuries they enjoy, the interesting restaurants they patronize, how well they spend their time, and the different food indicates conspicuous consumption [28]. All these elements can be captured and illustrated well through the camera eats first concept.

The camera eats first trend carries notable economic implications as it drives consumer spending towards visually appealing dining experiences, thereby benefiting the food and hospitality industry. Through food photography, influencer marketing and brand partnerships are fueled, opening avenues for promotional opportunities. The thriving digital marketing landscape and online platforms experience growth through targeted advertising. Additionally, this trend generates employment opportunities for photographers, content creators, and influencers. Nevertheless, traditional marketing methods might encounter difficulties in this evolving landscape.

Summing up the implications, we note that a valid and reliable measure of camera eats first, and the realization that such measures are important to outcomes in practice may serve as the foundation for evidence-based marketing of ideas. This approach would also minimize the possibility of "the so-called online firestorms" from "any controversial brand behavior and/or negative, inappropriate, and offensive brand content" posted by an unhappy customer [19].

5.2 Limitations and Future Research

While our study has identified several key drivers of the camera eats first phenomenon, we acknowledge that more aspects exist which deserve further consideration. Our proposed 30-item scale offers the flexibility to measure camera eats first independent from its source, presenting a universal in situ measure for tapping into this new field of research. Furthermore, the scale would be easy to administer within existing surveys because it is intentionally designed as a parsimonious measure. As a valid and reliable tool, the scale can therefore create a basis for future studies on camera eats first in the customer's journey. However, a comprehensive assessment of the wider nomological network is beyond the scope of this study. Therefore, a productive area for future investigation would be the nexus between the camera eats first and established restaurant marketing constructs for creating informed customer-to-customer marketing strategies.

Mylonopoulas and Theoharakis [49] pointed out the possible negative implications of excessive social media use, e.g., attention-deficit compulsive behavior or hyperactivity disorder, loss of privacy and cyberbullying, etc., and the challenges associated with addressing "their nature, extent, veracity, and measurement" (p. 181). Likewise, frequent photo-taking and posting in social media-based online communities can signal underlying eating disorders or unhealthy habits. Also, ongoing obsession with considering food and meals as magnets for likes can make people obese. Therefore, future research could also investigate the camera eats first relationships with an eating disorder and obesity-related concepts. Our research focuses on the camera eats first in restaurant settings. However, many people snap homemade foods and post them on social media. So, future research could investigate homemade foods' camera eats first and its relationship with food ingredients marketing opportunities. Indeed, tremendous research opportunities are possible as a sequel to the current scale.

CONFLICT OF INTEREST

The authors have no conflict of interest to declare.

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