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Introduction

In recent years, marketers are increasingly using social media platforms, including Twitter, YouTube, and Facebook, to communicate with their (prospective) customers and strengthen their customer relationships. In this environment, cultivating customer engagement (CE) has been heralded as a critical success factor in optimizing social media marketing performance (e.g., Hollebeek *et al.*, 2014). Correspondingly, social media-based CE has attracted surging academic and practitioner interest across a range of sectors (Kumar *et al.*, 2019), including tourism and hospitality (e.g., So *et al.*, 2020; Rather *et al.*, 2021).

Engaged customers typically offer several benefits to the firm, including a proclivity to recommend the company or brand, and participate in new product/service development (Global Customer Engagement Review, 2021). Thus, scholars have made steady advances in terms of understanding CE. Moreover, rising interest is observed in CE's dynamics in technological (e.g., augmented reality/artificial intelligence-based) contexts (e.g., Jessen *et al.*, 2020; Sashi, 2021; Hollebeek *et al.*, 2021). In this niche, social media-based CE, in particular, has received extensive attention (De Oliveira Santini *et al.*, 2020).

In parallel, CE research has proliferated across a range of sectors (e.g., services, tourism), with existing studies conceptualizing and operationalizing CE and exploring its effect on variables, including customer brand loyalty (So *et al.*, 2014). CE with brands, as facilitated through social media, has also received considerable investigation (e.g., Wei *et al.*, 2013; Harrigan *et al.*, 2018). However, despite advances in both areas, extant research has predominantly explored CE as a single snapshot in time, that is, by using cross-sectional research designs (e.g., Brodie *et al.*, 2013; So *et al.*, 2014), thus limiting insight to CE's dynamics over time. Specifically, by largely limiting CE-based insight to a particular temporal snapshot, understanding of its time-based evolution remain nebulous. In particular, as an interactive variable, CE levels, indeed, tend to fluctuate over time (e.g., Gambetti *et al.*, 2012). Consequently, undertaking longitudinal CE research is necessary to better understand the concept's oscillating dynamics and outcomes (So, Li, & Kim, 2020; Viswanathan *et al.*, 2017), as therefore undertaken in this paper. Addressing this gap, this study addresses CE, SMMA, and consumer stickiness with a tourism destination at three different time points (using one-month intervals), thus providing a much-needed longitudinal investigation of social media-based CE.

Literature Review and Hypothesis Development

Customer engagement

CE is commonly viewed as the customer's resource investment in his/her brand- or firm-related interactions (Hollebeek, Srivastava, & Chen, 2019; Kumar, Rajan, Gupta, & Dalla Pozza, 2019). These interactions may transpire with a range of engagement objects (Hollebeek, 2011), including brands (e.g., So *et al.*, 2016a/b), brand communities (e.g., Hammedi *et al.*, 2015), tourism destinations (e.g., Rather, Hollebeek, & Rasoolimanesh, 2021), social media (e.g., Carlson *et al.*, 2018), and so on.

In the tourism/hospitality sector, So *et al.* (2014) conceptualize CE as a second-order, five-dimensional construct that comprises tourists' brand-related identification, enthusiasm, attention, absorption, and interaction. Many empirical CE studies were conducted on a predominantly cross-sectional basis (e.g., Hollebeek *et al.*, 2014; So *et al.*, 2014), thus yielding limited, snapshot-based insight, as therefore expanded to a longitudinal perspective in this paper.

Social media marketing activities

Social media marketing activities (SMMAs), which represent a subset of digital marketing activities, serve five primary purposes, including entertainment, interaction, trendiness, customization, and word-of-mouth (Barefoot & Szabo, 2010). SMMAs have been identified as a significant predictor of consumer responses (e.g., repurchase intent) and brand equity (Godey *et al.*, 2016; Chen & Lin, 2019). However, as noted for CE research, most existing SMMA research remains cross-sectional in nature. Consequently, insight is limited to explaining customers' social media attitudes at a particular point in time (vs. over time).

Consumer stickiness

Consumer stickiness, defined as the amount of time a user spends on a company's social media page (Lin *et al.*, 2010), offers an intuitive fit with the CE and SMMA literatures. For example, by suggesting that engaged customers spend more time on the site, Zhang *et al.* (2017) identify a key association between CE and stickiness (Lin, Hu, Sheng, & Lee, 2010; Kumar Roy, Lassar, & Butaney, 2014). However, despite this plausible link, scholarly acumen of the CE/consumer stickiness interface remains tenuous (Zott, Amit, & Donlevy, 2000; Roy, Lassar, & Butaney, 2014), as therefore explored in this paper.

Assessment of consumer stickiness over time is important, because consumer brand/relationships tend to be dynamic (vs. static), as identified in Alvarez *et al.*'s (2021) longitudinal interviews, necessitating the undertaking of further (e.g., CE-based) longitudinal research. In this vein, construal level theory, which has been adopted to explain the dynamic nature of human experience and behavior, recognizes that consumers can think about past/future events and experiences that extend beyond the immediate context. Individuals' perception can differ in terms of when (time), where (space), with whom (social distance), and/or whether an event will happen (i.e., hypotheticality; Lynch & Zauberman, 2007). Specifically, construal level theory suggests that a past event (one month ago) will feel more distant to an individual (vs. an event tomorrow). With respect to CE, Hollebeek *et al.* (2014) suggest that CE levels will tend to fluctuate (vs. remain static over time). We, therefore, propose:

H1: CE with a tourism destination changes over time.

H2: A consumer's evaluation of tourism destination's SMMA changes over time.

H3: Consumers' social media-based stickiness on a tourism destination's brand's page changes over time.

Cross-lagged hypothesis development

Prior cross-sectional research supports the existence of a theoretical association between a consumer's CE, evaluations of SMMA, and stickiness with a tourism destination. First, regarding the association of CE and evaluations of SMMA, a positive, significant association has been reported. Farook and Abeysekara (2016) report that consumer evaluations of SMMA act as a significant predictor of CE (Kang, 2005). Conversely, however, CE may also yield consumers'

more favorable SMMA evaluations. Given the cross-sectional evidence that consumers' SMMA evaluations can influence CE, which – in turn – may influence the individual's subsequent brand-related evaluations (e.g., brand love), over time, we expect the existence of a bidirectional relationship between CE and SMMA. We theorize:

H4: A cross-lagged effect exists between CE and consumers' SMMA evaluations.

Further, empirical research reveals CE's significant effect on consumer stickiness (STK) (e.g., Molinillo, Anaya-Sánchez, & Liébana-Cabanillas, 2020). For example, Zhang *et al.* (2017) suggest that CE's dimensions will positively impact user stickiness on company-based social media pages, akin to Molinillo *et al.* (2020), who found that an engaged (vs. disengaged) customer is likely to more time/effort on a firm's social media page. However, it remains unclear whether this consumer stickiness will, in turn, also impact CE, despite anecdotal evidence. We, therefore, expect CE and consumer stickiness to have a reciprocal (vs. one-way) effect on each other, which – given these constructs' potentially fluctuating nature – requires longitudinal analysis for its exploration. Correspondingly, we hypothesize:

H5: A cross-lagged effect exists between CE and consumer stickiness.

Finally, Kumar and Mirchandani's (2012) stickiness index measures the extent to which social media users discuss a specific topic/brand online. By using this metric, marketers are able to identify those users that are more (vs. less) sticky to the platform. Likewise, Chavez *et al.* (2020) explore how consumers' travel motivations and user-generated social media content influence consumer stickiness on social media pages. We postulate:

H6: A cross-lagged effect exists between evaluations of SMMA on consumer stickiness.

Methodology

Survey instrument

To test the hypotheses, we deployed a longitudinal research design across three time points, with 30-day intervals. In longitudinal research, it is crucial to select an appropriate time lag between study waves, because the intervals may influence the internal validity of the results (Taris & Kompier, 2014) and may also influence the magnitude of the causal effect (Selig, 2009). Polyhart and Vandenberg (2010) suggest that the time lag should reflect the casual lag between variables. Thus, consistent with prior longitudinal research (e.g., Katja *et al.*, 2002), we adopt a one-month time lag between the three data collection waves. Our measurement items were sourced from the literature, with minor modifications made to relevant items to ensure their applicability to this study.

Pilot study

To verify the quality of the survey instrument, a pilot study was conducted via Amazon Mechanical Turk (MTurk) prior to the three-wave main study. A total of 202 valid responses was obtained from the respondents, who had (i) traveled either domestically or internationally in the past twelve months, and (ii) used one or more social media platform(s) relating to their destination named at the start of the survey (e.g., TripAdvisor, etc.). The pilot study confirmed the reliability and validity of the scales.

Main study

The main study was conducted by using a Qualtrics panel from December 2018 to March 2019. Time 1 (t1) questionnaires were distributed to the respondents, who had traveled either domestically or internationally in the past month, yielding a total of 1198 responses. Then, after a 30-day interval (Robinson, Shaver, & Wrightsman, 1991), the same respondents were recontacted to take the survey at time 2 (t2). In this second wave, each respondent's named destination (first wave) was self-populated in their respective survey, generating 428 responses. Subsequently, the third (i.e., time 3 or t3) survey was administered to these respondents following the same procedure, yielding a total of 215 responses. Across the three data collection waves, questionnaires were also matched to each respondent's Qualtrics ID. Overall, we recorded a final sample of 215 respondents, who completed the survey at time 1, 2, and 3, which was deployed for further analysis.

Results

Measurement model: CFA (time 1)

We next assessed the measurement model by conducting confirmatory factor analysis (CFA) on the deployed scales. Upon inspection, several of these items were removed and the model was re-estimated. The CFA results indicated a good fit to the data. The reliability and validity of the deployed scales were also confirmed.

Measurement model: Longitudinal CFA

Following prior longitudinal research (e.g., Lau *et al.*, 2015; Miller *et al.*, 2008), a three-wave, longitudinal CFA was conducted. The measurement model comprised nine latent variables (e.g., CE t1, t2, t3; SMMA t1, t2, t3; and STK t1, t2, t3) and cross-wave correlations between the respective measure errors. The longitudinal measurement model results indicated good model fit and all the items also loaded significantly on their respective construct.

Following the longitudinal measurement model, an invariance test was conducted to assess the measurement model's equivalence across the three time points (Lau *et al.*, 2015; Benbenishty, Astor, Roziner, & Wrabel, 2016). The result indicated that the longitudinal measurement model was invariant across the three time-points.

Repeated ANOVA

To explore whether brand-related CE, SMMA, and STK fluctuate over time, a series of repeated ANOVAs were conducted using SPSS 26. First, CE was found to exhibit statistically significant differences across time-points ($F(1.94, 415.61) = 9.24$, $p < .001$). Post-hoc testing using the Bonferroni correction revealed that CE significantly increased from time 1 to time 2 and significantly increased from time 1 to 3. However, it reduced from time 2 to time 3, though the change was not significant. Thus, H1 was partially supported.

Similarly, evaluations of SMMA exhibited a statistically significant difference across the studied time-points ($F (1.74, 427.49) = 4.61$, $p < .05$). Post-hoc testing using the Bonferroni correction suggested that SMMA increased significantly from time 1 to time 3 and time 1 to time 2, while the change from time 2 to time 3, again, was not significant. Thus, H2 was partially supported.

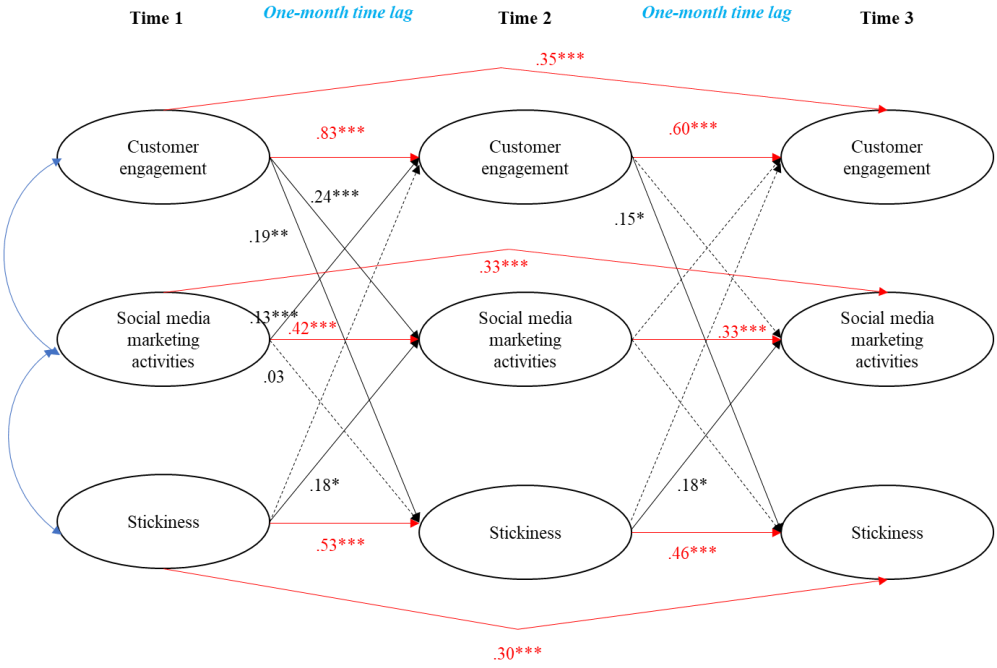
Likewise, the repeated ANOVAs showed that STK showed a statistically significant difference across time-points ($F (2.00, 425.92) = 4.91$, $p < .05$). Post-hoc testing using the Bonferroni correction revealed that while STK grew significantly from time 1 to time 2, and from time 1 to

time 3, it reduced from time 2 to time 3, though the change not significant. Thus, H3 also received partial support.

Cross-lagged autoregressive panel model

To investigate the proposed reciprocal association between CE, SMMA, and STK over time, a cross-lagged autoregressive panel model was deployed, which provides superior estimates of each construct's true scores (vs. the path model), while also more accurately estimating the evolution of potential causal relations over time (Little, Preacher, Card, & Selig, 2007).

The cross-lagged autoregressive panel model results revealed the model's satisfactory fit to the data: $\chi 2 = 962.93$ ($p < .001$, $df = 528$), $\chi 2/df = 1.82$; CFI = .96; TLI = .95; RMSEA = .06 (PLOSE = .001, 90% CI= [.06, .07]). The critical ratios of the autoregressive paths showed that H1, H2, and H3 were supported, as shown in Figure 1 (red lines). Overall, the findings suggest that CE, firm-based SMMA, and consumer STK are highly linked across the three data waves. The autoregressive paths also showed that CE, SMMA, and STK tend to decrease over time.



Note. All constructs measurement at the same time are correlated. Red lines indicate the autoregressive effects while black lines indicate cross-lagged effects

Figure 1 Autoregressive Cross-lagged Panel Model Results

The cross-lagged paths demonstrate that CE (time 1) is a significant predictor of consumer STK at time 2 ($\beta = .19$, $p < .01$), indicating higher CE (time 1) yields higher STK (time 2). This pattern persists for CE at time 2, producing higher consumer STK at time 3 ($\beta = .15$, $p < .01$). However, the effect size appears to decrease over time. That is, CE's effect on consumer STK is strongest at time 1, and reduces thereafter (i.e., from time 2 to time 3). However, evidence of consumer STK's effect on CE at either time 1, 2 ($\beta = -.01$, $p > .05$) or 3 ($\beta = .05$, $p > .05$) was not attained, yielding partial support for H5. Moreover, consumer STK (time 1) was found to yield their positive SMMA evaluation at time 2 ($\beta = .18$, $p < .05$), while consumer STK (time 2) also leads to their higher SMMA at time 3 ($\beta = .18$, $p < .05$). Interestingly, this effect consistently holds across the three studied time-points. Contrary to our expectation, the results did not support the hypothesized

association of consumers' SMMA evaluation at time 1 or 2, and STK at time 2 (β= .14, p > .05) or 3 (β= .00, p > .05), respectively. Thus, H6 was partially supported. Furthermore, CE (time 1) was found to significantly affect consumers' SMMA evaluation at time 2 (β= .24, p < .001), though this effect waned at time 3 (β= .03, p > .05). Similarly, though SMMA at time 1 was found to influence CE at time 2 (β= .13, p < .001), this effect was not significant at a later wave (β= -.04, p > .05), thus also yielding partial support for H4.

Implications, Limitations, and Further Research

Theoretical implications

This study has theoretical implications. Specifically, we adopted a longitudinal, cross lagged analytical approach to explore the evolution and/or potentially fluctuating dynamics of CE, SMMA, and consumer STK over time, given the extensive research examining the three conceptually intertwined constructs in the social media/digital marketing domain. The results of the study providing some evidence as to the iterative nature of CE, this study revealed that the evaluation of SMMA had a strong influence on CE and, at the same time, CE had a positive influence on SMMA evaluation from time 1 to time 2. However, the same iterative effect was not observed when considering the impact of STK on CE despite CE consistently influencing STK across time 1 and time 2 as well as time 2 and time 3. This was the same result observed for SMMA and STK; SMMA did not impact STK across either time period, although STK consistently impacted the evaluation of SMMA.

When considering construal theory, which holds that temporal distance has a demonstrated impact on events, encounters, or experiences are construed over time, it is evident that the strength of a customer's level of CE as well as their evaluation of SMMA and STK wanes over time. An initial increase in strength was observed from time 1 to time 2 for all constructs, which was, however, found to abate from time 2 to time 3. One plausible reason is that the current study uses travel experience as the study setting, where most consumers engage in the consumption for relaxation and fun, constituting a hedonic consumption experience in most situations. As such, the remembered excitement and hedonism may increase after the trip and decline subsequently as time further progresses.

Practical implications

The present study offers implications for the social media/digital marketing. First, since CE significantly influences SMMAand STK, marketers should increase CE on social media and increase their STK. For example, marketers could provide attractive and innovative posts on social media to grab consumers attention, and keep consumers updated with news and information about the destination. In addition, marketers could provide timely responses to customers comments or posts, which keep consumers interactive. Second, marketers could focus on a subset of digital marketing activities to increase consumers entertainment and customization. Marketers could tailor brand-related social media's content to target markets.

Limitations and future research

This study has limitations which point direction for future research. First, cross-lagged model is sensitive to time intervals, which may influence the results. In this current study, we have adopted a 30-day interval between different wave of data collections. Future research may consider different intervals to investigate the causal relationships between constructs. In addition, the

sampling frame is limited to tourists in the U.S., which may influence the generalizability of the findings. Thus, future research could explore the proposed model in different services contexts and different countries.

References

Alvarez, C., Brick, D. J., & Fournier, S. (2021). Doing Relationship Work: A Theory of Change in Consumer-Brand Relationships. *Journal of Consumer Research*, *48*(4), 610-632.

Barefoot, D., & Szabo, J. (2009). *Friends with benefits: A social media marketing handbook*. No Starch Press.

Benbenishty, R., Astor, R. A., Roziner, I., & Wrabel, S. L. (2016). Testing the causal links between school climate, school violence, and school academic performance: A cross-lagged panel autoregressive model. *Educational Researcher*, *45*(3), 197-206.

Brodie, R. J., Ilic, A., Juric, B., & Hollebeek, L. (2013). Consumer engagement in a virtual brand community: An exploratory analysis. *Journal of Business Research*, *66*(1), 105-114.

Carlson, J., Rahman, M., Voola, R., & De Vries, N. (2018). Customer engagement behaviours in social media: capturing innovation opportunities. *Journal of Services Marketing*, *32*(1), 83-94.

Chavez, L., Ruiz, C., Curras, R., & Hernandez, B. (2020). The role of travel motivations and social media use in consumer interactive behaviour: A uses and gratifications perspective. *Sustainability*, *12*(21), 8789.

Chen, S. C., & Lin, C. P. (2019). Understanding the effect of social media marketing activities: The mediation of social identification, perceived value, and satisfaction. *Technological Forecasting and Social Change*, *140*, 22-32.

de Oliveira Santini, F., Ladeira, W. J., Pinto, D. C., Herter, M. M., Sampaio, C. H., & Babin, B. J. (2020). Customer engagement in social media: a framework and meta-analysis. *Journal of the Academy of Marketing Science*, *48*(6), 1211-1228.

Farook, F. S., & Abeysekara, N. (2016). Influence of social media marketing on customer engagement. *International Journal of Business and Management Invention*, *5*(12), 115-125.

Gambetti, R. C., Graffigna, G., & Biraghi, S. (2012). The grounded theory approach to consumer-brand engagement: The practitioner's standpoint. *International Journal of Market Research*, *54*(5), 659-687.

Godey, B., Manthiou, A., Pederzoli, D., Rokka, J., Aiello, G., Donvito, R., & Singh, R. (2016). Social media marketing efforts of luxury brands: Influence on brand equity and consumer behavior. *Journal of Business Research*, *69*(12), 5833-5841.

Hammedi, W., Kandampully, J., Zhang, T. T. C., & Bouquiaux, L. (2015). Online customer engagement: Creating social environments through brand community constellations. *Journal of Service Management*, *26*(5), 777-806.

Hollebeek, L. (2011). Exploring customer brand engagement: definition and themes. *Journal of Strategic Marketing*, *19*(7), 555-573.

Hollebeek, L. D., Glynn, M. S., & Brodie, R. J. (2014). Consumer brand engagement in social media: Conceptualization, scale development and validation. *Journal of Interactive Marketing*, *28*(2), 149-165.

Hollebeek, L. D., Sprott, D. E., & Brady, M. K. (2021). Rise of the machines? Customer engagement in automated service interactions. *Journal of Service Research*, *24*(1), 3-8.

Hollebeek, L. D., Srivastava, R. K., & Chen, T. (2019). SD logic–informed customer engagement: integrative framework, revised fundamental propositions, and application to CRM. *Journal of the Academy of Marketing Science*, *47*(1), 161-185.

Jessen, A., Hilken, T., Chylinski, M., Mahr, D., Heller, J., Keeling, D. I., & de Ruyter, K. (2020). The playground effect: How augmented reality drives creative customer engagement. *Journal of Business Research*, *116*, 85-98.

Katja, R., Päivi, Å. K., Marja-Terttu, T., & Pekka, L. (2002). Relationships Among adolescent subjective well-being, health behavior, and school satisfaction. *Journal of School Health*, *72*(6), 243-249.

Kumar, V., & Mirchandani, R. (2012). Increasing the ROI of social media marketing. *MIT Sloan Management Review*, *54*(1), 55.

Kumar, V., Rajan, B., Gupta, S., & Pozza, I. D. (2019). Customer engagement in service. *Journal of the Academy of Marketing Science*, *47*(1), 138-160.

Lau, W. W., Hui, C. H., Lam, J., Lau, E. Y., & Cheung, S. F. (2015). The relationship between spirituality and quality of life among university students: An autoregressive cross-lagged panel analysis. *Higher Education*, *69*(6), 977-990.

Lin, L., Hu, P. J. H., Sheng, O. R. L., & Lee, J. (2010). Is stickiness profitable for electronic retailers?. *Communications of the ACM*, *53*(3), 132-136.

Little, T. D., Preacher, K. J., Selig, J. P., & Card, N. A. (2007). New developments in latent variable panel analyses of longitudinal data. *International Journal of Behavioral Development*, *31*(4), 357-365.

Lynch Jr, J. G., & Zauberman, G. (2007). Construing consumer decision making. *Journal of Consumer Psychology*, *17*(2), 107-112.

Molinillo, S., Anaya-Sánchez, R., & Liébana-Cabanillas, F. (2020). Analyzing the effect of social support and community factors on customer engagement and its impact on loyalty behaviors toward social commerce websites. *Computers in Human Behavior*, *108*, 105980.

Ployhart, R. E., & Vandenberg, R. J. (2010). Longitudinal research: The theory, design, and analysis of change. *Journal of Management*, *36*(1), 94-120.

Rather, R. A., Hollebeek, L. D., & Rasoolimanesh, S. M. (2021). First-time versus repeat tourism customer engagement, experience, and value cocreation: An empirical investigation. *Journal of Travel Research*, *61*(3), 549-564.

Robinson, J. P., Shaver, P. R., & Wrightsman, L. S. (1991). *Criteria for scale selection and evaluation*. Measures of personality and social psychological *attitudes*, Harcourt Brace Jovanovich, Academic Press, Inc. *1*, 1-16.

Roy, S. K., Lassar, W. M., & Butaney, G. T. (2014). The mediating impact of stickiness and loyalty on word-of-mouth promotion of retail websites: A consumer perspective. *European Journal of Marketing*, *48*(9/10), 1828-1849.

Sashi, C. M. (2021). Digital communication, value co-creation and customer engagement in business networks: a conceptual matrix and propositions. *European Journal of Marketing*, 55(6), 1643-1663.

Selig, J. P. (2009). Where has the time gone? The role of time lags in models for longitudinal data (Doctoral dissertation, University of Kansas).

So, K. K. F., & Li, X. (2020). Customer engagement in hospitality and tourism services. *Journal of Hospitality & Tourism Research*, *44*(2), 171-177.

So, K. K. F., King, C., & Sparks, B. (2014). Customer engagement with tourism brands: Scale development and validation. *Journal of Hospitality & Tourism Research*, *38*(3), 304-329.

So, K. K. F., King, C., Sparks, B. A., & Wang, Y. (2016). Enhancing customer relationships with retail service brands: The role of customer engagement. *Journal of Service Management*, *27*(2), 170-193.

So, K. K. F., Li, X., & Kim, H. (2020). A decade of customer engagement research in hospitality and tourism: A systematic review and research agenda. *Journal of Hospitality & Tourism Research*, *44*(2), 178-200.

Taris, T. W., & Kompier, M. A. (2014). Cause and effect: Optimizing the designs of longitudinal studies in occupational health psychology. *Work & Stress*, *28*(1), 1-8.

Viswanathan, V., Malthouse, E. C., Maslowska, E., Hoornaert, S., & Van den Poel, D. (2018). Dynamics between social media engagement, firm-generated content, and live and time-shifted TV viewing. *Journal of Service Management*, *29*(3), 378-398.

Zhang, M., Guo, L., Hu, M., & Liu, W. (2017). Influence of customer engagement with company social networks on stickiness: Mediating effect of customer value creation. *International Journal of Information Management*, *37*(3), 229-240.

Zott, C., Amit, R., & Donlevy, J. (2000). Strategies for value creation in e-commerce: best practice in Europe. *European Management Journal*, *18*(5), 463-475.