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The Role of Visual Information in Ethnic Restaurant Patronage on Food Ordering Apps (FDAs)

Food ordering apps (FDAs) have gained popularity in recent years due to the changing lifestyles and mobile technology. Particularly during the COVID-19 pandemic, more consumers choose to order food from restaurants using FDAs. This research examined the effect of visual information featured on the FDAs menu of an ethnic restaurant on restaurant patronage through online trust and consumer attitude. Further, the moderating effect of reputation on such an effect was explored.

Visual information has been considered as an important factor in website design and menu design (Hou et al., 2017; Lin et al., 2012; Pennings et al., 2014). However, many food ordering apps are designed in pursuit of time-saving and convenience (Lee et al., 2017). Unlike websites, it is difficult to embed too much verbal information in an online menu with limited screen space on a mobile device (Lee et al., 2017). However, dishes with ambiguous food names or/and unique ingredients served by ethnic restaurants might make it hard for customers to imagine how the food tastes, if no visual information is provided. The absence of human network attributes (i.e., audio, visual, and sensual) will jeopardize the building of online trust (Nohria & Eccels, 1992), which contributes to consumer attitude towards e-commerce (Alagoz & Hekimoglu, 2012; Gao & Wu, 2010). Information quality is an essential part of gaining online trust when ordering online food services (Vasanthakumar & Arunprakash, 2019). Hence, we argue that adding visual information to ethnic restaurants' menu on FDAs will affect online trust positively, which in turn leads to more favourable attitudes, thus leading to higher patronage. Further, Jarvenpaa et al. (2000) found that the perceived reputation of an online store positively impacts consumer trust in an online store. Thus, we argue that the reputation of an ethnic restaurant on FDAs will moderate the serial mediation effect of visual information on patronage through online trust and attitude.

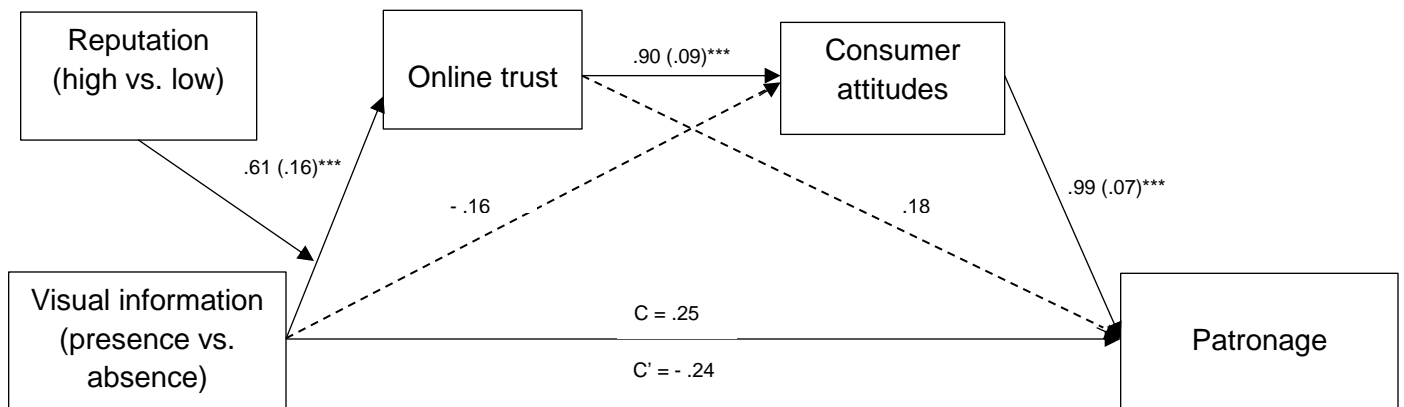
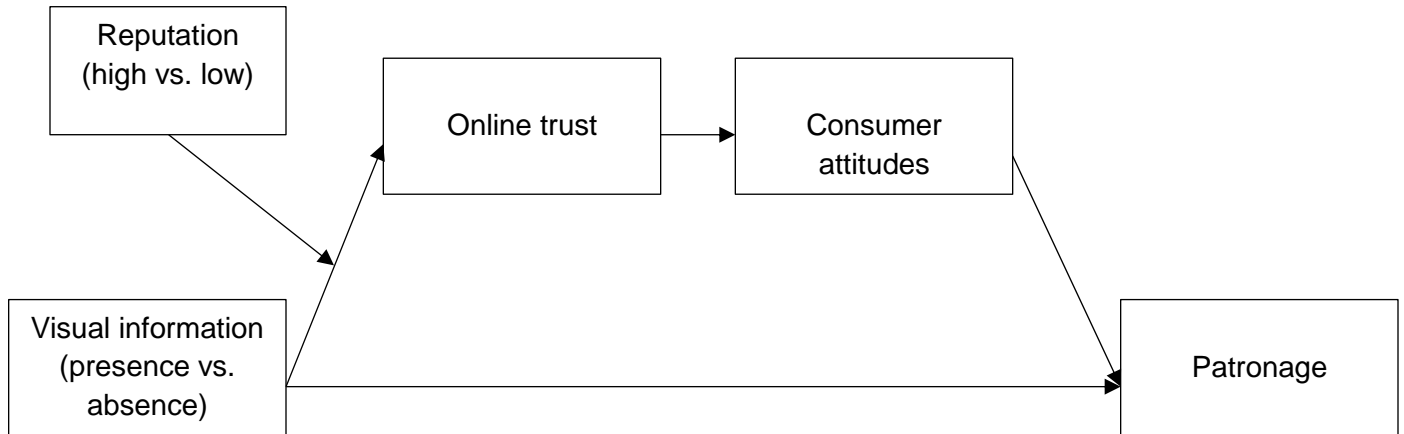
The study was conducted in North America. 160 participants recruited from Amazon Mturk were randomly assigned to one of the four conditions in a 2 (visual vs. non-visual) \times 2 (high vs. low reputation) between-subjects design. The visual information of a Japanese restaurant was manipulated by including/excluding food pictures. Reputation was manipulated by the star ratings from 1-5 (low = 2.45, high = 4.88). A multiple-step mediation analysis in PROCESS (5,000

bootstrapped samples; Model 6; Hayes 2013) was performed and the results showed that there was a significant indirect effect for the serial mediation path through online trust and attitude ($B = .54$; $SE = .16$, 95% CI [.24, .85]). The findings indicate that the menu with visual information (vs. menu without visual information) led to a higher level of online trust, which in turn led to more positive attitude towards the restaurant, thus increasing restaurant patronage. However, two-way ANOVA showed that there was no interactive effect of reputation and visual information on restaurant patronage ($p = 0.59 > 0.1$) and thus we did not proceed to the moderated mediation analysis. The theoretical and managerial implications of findings are discussed.

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Note. Serial mediation analysis with 5,000 bootstrap samples (model 6 in PROCESS; Hayes 2013). Regression weights (B) are unstandardized; Standard errors (SE) in parentheses: * $p < .05$, ** $p < .01$, *** $p < .001$.

C indicates total effect

C' indicates direct effect

The total indirect effect was significant (B = .49; SE = .25, 95% CI [.21, .97]).

The indirect effect through online trust and consumer attitudes (the effect hypothesized in *H1*) was significant (B = .54; SE = .16, 95% CI [.24, .85])

The indirect effect through online trust was not significant (B = .11; 95% CI [-.02, .29]).

The indirect effect through consumer attitudes was not significant (B = -.16; 95% CI [-.471, .17]).