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Leveraging the Power of Online Referral for E-Business: The Moderated Mediation Model

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Abstract: This study utilized the Kano model to practically identify the key attributes of online service quality of e-learning education companies. Along with a review of theoretical sources related to service quality, this paper placed similar attributes into the same cluster and finalized four constructs, i.e., reliability, responsiveness, competence, and engagement. In addition, consumer perception plays a mediating role in the relationship between online service quality and online purchase intention, while online customer referral is taken as a moderator indirectly influencing customer perceptions because people like to share their purchasing and usage experiences online. Subsequently, a structured questionnaire was designed and survey data were collected from 418 respondents through various social media. Hypotheses were tested using the structural equation modeling (SEM) and SPSS Process Model 4 and 7. The outcomes show (1) consumer perception significantly mediates the relationship between online service quality and online purchase intention, and (2) online customer referral has a profound effect on consumer perception, indicating that it indirectly affects purchase intention. Online customer referral, therefore, may help e-learning education companies to improve service quality with key features that better positions them to target online learners.

Keywords: online customer referral; online purchase intention; consumer perception; online service quality; Kano model; e-SERVQUAL

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1. Introduction

Information technology generates online platforms for companies and has changed the way business is managed. For instance, e-learning education companies are more beneficial during the Covid-19 crisis due to the fact that the need for social distancing has dramatically increased the usage of e-learning. This growing tendency has drawn great attention toward comprehending the differences in learning quality between online and traditional (offline) teaching methods. To a great extent, learning outcomes largely depend on some key attributes of online service quality and therefore affect online purchase intention. In this regard, studies that measure the dimensions of online service quality on purchase intention in an online learning context are relatively limited. Therefore, the primary purpose of this paper is to fill this gap by exploring attributes of online service quality in the online education industry.

The rise of e-commerce has dramatically changed customer behavior. While some researchers make efforts to identify the key factors that directly influence online purchase intention [1], others indicate that consumers may go through psychological processes that indirectly affect purchase intention [2]. Perceived value and risk are the two significant elements affecting customer psychology [3–6]. Therefore, this paper proposes customer perception as a mediator and examines its indirect impact on the relationship between online service quality and online purchase intention.

In the online service sector, a recent report highlights the importance of online reviews, showing that 87% of consumers read online referrals for relevant information [7]. Contemporary researchers have established that online referrals (interchangeable with e-WOM and

online reviews) can directly influence online purchase intention. Numerous studies have adopted online reviews as a direct key variable for various research problems in hospitality and tourism [8–10]. Nevertheless, when consumers are fairly active in searching for specific types of information while assessing online products and services, they simultaneously search for feedback from other consumers as their key resources in the decision-making process. From this point of view, online referrals would rather serve an indirect role than be a direct variable that significantly influences purchase intention. In this regard, little is known about the role of online referrals in developing purchase intention through consumer perception. This paper helps identify the gap in extended online referral literature by taking it as a moderating role that might have an indirect impact on the relationships between online service quality and customer perception, and in turn, on online purchase intention.

With this background, this study initially employs the Kano model [11] to identify the key attributes of online service quality by analyzing the online referrals made by the learners from an online English company's website. Based on this analysis and integrating consumer perception as a mediating variable, this paper aims to answer the research question of how online referrals may indirectly influence purchase intention. Two hypotheses are proposed: (1) consumer perception (mediator) indirectly influences the relationship between online service quality and online purchase intention, and (2) online customer referral (moderator) affects the strength and direction of that relationship.

2. Theoretical Background

The objective of this study essentially was to test the effect of online service quality on online purchase intention (OPI) that may partially flow through a mediating variable, namely, consumer perception (CP). Meanwhile, online customer referral (OCR) is a key driver that influences the relationship between online service quality and consumer perception, and therefore online purchase intention (OPI). The conceptual research model is illustrated in Figure 1.

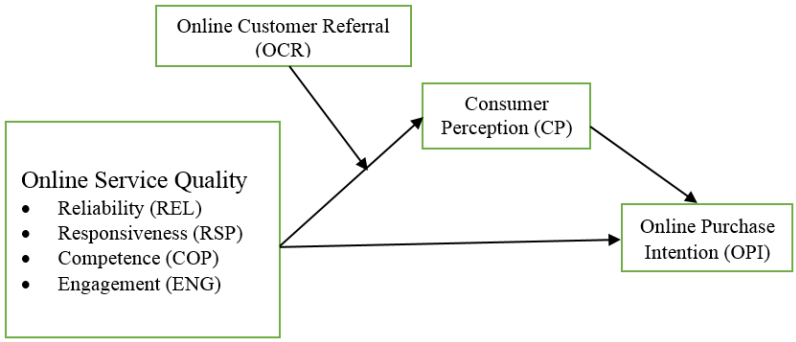


Figure 1. Conceptual diagram of the moderated mediation model.

2.1. Online Service Quality and Online Purchase Intention

Attractive attributes of products and services lead to higher purchase intentions. In the traditional service sector, researchers have explored significant attributes to evaluate service quality [12–15]. Parasuraman et al. (1985) [16] developed the SERVQUAL model integrating ten dimensions that greatly affect consumers' perceptions of service quality. More attention has been paid to the SERVQUAL model, and extensive studies were conducted in a variety of industries. The findings are mostly based on either the combination of tangible products, consumption and service delivery, or services rendered in the firms where consumers physically participate. Some dimensions are applicable to the construct of intangibility within the online services context.

In the online service environment, Zeithaml et al. (2001) [17] developed e-SERVQUAL on the basis of the original SERVQUAL model, containing 11 dimensions for measuring online service quality, while Loiacono et al. (2002) [18] introduced the WEBQUAL model

with 12 key dimensions. Numerous researchers adopted e-SERVQUAL or WEBQUAL to explore core service dimensions to better predict customer behavior, such as purchase intention [2], customer trust [19], customer satisfaction [20], and customer retention [21]. The e-service quality determinants of individual findings were reliable and significant, indicating that these scales have been widely used to evaluate online service quality across different industries.

The Kano model [11] was used in a complementary way to help explore the key attributes of online service quality that affect customer intention in this study. Although the model was generally utilized to improve product quality in the manufacturing sector, it has been increasingly adopted in the service sector, such as airlines [22], health care [23], hotels [24], sports [25], nursing homes [26], and tourism [27]. A case study used both the Kano model and SERVQUAL scale to explore key factors of airlines affecting service quality [28]. Likewise, this paper used a similar approach by integrating SERVQUAL into the Kano model to analyze an online English learning center. Subsequently, based on the online referrals made by online learners of the online English company Gjun Language Institute, this study pinpointed four key constructs, namely, reliability (REL), responsiveness (RSP), competence (COP), and engagement (ENG), which may offer opportunities for online learning companies to satisfy online customer expectations.

2.1.1. Reliability (REL)

Reliability in this study refers to accurate technical functioning of the service website and the correct description of service promises and information [29]. It means that an online English center should honor its promises, including performing the service at the designated time, keeping accurate records, and maintaining system reliability. In online marketplaces, customers who make online purchases are concerned most about issues such as privacy [30], transaction security [31], and problem-solving [32]. It has not been enough for online sellers to gain competitive advantages based solely on a cost leadership strategy [33]. Online buyers can largely rely on the online companies with a certain level of familiarity and trust. Some empirical studies demonstrated that reliability has a significant effect on perceived online service quality [34,35]. Based on the context, this paper proposes:

Hypothesis 1 (H1). *Reliability has a positive effect on online purchase intention in the field of online education companies*.

2.1.2. Responsiveness (RSP)

Responsiveness in this study refers to the speed and quality with which online education companies provide customer service and communication. To an extent, customers are more concerned about the ability of companies to provide appropriate information, the mechanism to solve customer problems, and the commitment to fulfill online guarantees [16,29]. Griffith and Krampf (2001) [36] emphasized that responsiveness of the website is one of the key determinants of service quality delivered through the internet, including live chat, social media, hot-link, and email.

Indeed, surveys conducted by J.D. Power, a market research company, have shown that online buyers prefer to chat with real people in real-time and online, and more companies that use live chat increase revenue. Furthermore, several studies found that a well-functioning website is critical for online learners to evaluate service quality and thus purchase intention, which may involve adequate system capacity, staff support, accurate records, security, and privacy [37,38]. Students who overcome challenges to achieve their learning goals are regarded as possessing high levels of self-efficacy [39]. Studies showed that they are confident in their ability to successfully use the internet and thus may choose online courses to improve themselves by searching for a good online company with a readily available instructor in terms of responsiveness and immediacy [40,41]. Based on the context, this paper proposes:

Hypothesis 2 (H2). *Responsiveness has a positive effect on online purchase intention in the field of online education companies.*

2.1.3. Competence (COP)

Competence in this study refers to the knowledge and skills that the personnel possess to perform services in online English companies. In an exploratory study of online learning from the students' perspective, Van Wart et al. (2020) [42] identified that the technological and instructor competence are the main concerns when choosing online courses. In addition, as students become accustomed to online learning, the ability of online education centers has as much effect on demand, especially in terms of basic functional competence. Some researchers found that competence characteristics of an online company have a significant effect on consumers' perceived trust and therefore increase purchase intention [1]. As several research studies suggested that online sellers need to develop a substantial degree of perceived trust in the traits of competence before online buyers make purchase decisions [43–45], this paper proposes:

Hypothesis 3 (H3). *Competence has a positive effect on online purchase intention in the field of online education companies.*

2.1.4. Engagement (ENG)

Engagement in this study refers to the usage of online class tools such as video lectures, videoconferencing, and group discussions. Clayton et al. (2018) [46] found that engagement and interaction are key factors that impact students' responses to online learning environments. Van Wart et al. (2020) [42] claimed that good online classes should properly engage students and provide strong learner-to-leaner interactions, as the most demanding learners expect more interactions in the learning process with the instructor and other students. Indeed, an augmented service should include components of learner participation and communication [47]. In this regard, Redmond et al. (2018) [48] introduced a framework that theoretically identifies essential indicators for online engagement and practically helps build effectiveness of online courses to engage students, while Pawan et al. (2003) [49] proposed valid strategies that help instructors increase collaborative interactions in online discussions. Based on the context, this paper proposes the following:

Hypothesis 4 (H4). *Engagement has a positive effect on online purchase intention in the field of online education companies.*

2.2. The Mediating Effect of Consumer Perception

Shopping online is perceived to be risky due to the consumers' belief regarding whether or not the product would function according to their expectations [50]. The stimulus-organism-response (SOR) model suggests that the occurrence of purchase behavior goes through product category at the beginning, and then brings about some psychological adjustments through experience. When positive signals appear in this psychological change, the actual purchase behavior will be determined by subjective perception [51]. Analogously applying the SOR model to online purchase intention in online learning centers, three phases are motivation, perception, and decision. Alternatively, the theory of planned behavior (TPB) illustrates that the primary factors of purchase intentions are governed by the attitude toward the behavior, the subject norms, and the perceived behavioral control [52].

In the motivation phase, the most crucial buying motive in a purchase by most customers is the desire for financial gain. To motivate customers, financial institutions have to provide clear information regarding the advantages of the product, especially the benefits, convenience, efficiency, high returns, and risk warnings. In the perception phase, once identifying the benefits that customers perceive they will obtain in many ways while purchasing online learning courses, these past experiences have a certain level of

psychological impact on customers and turn into a strong stimulus [53]. Consumers are more likely to process stimulus that has relevance to buying internet services.

In addition, a company image also plays a driving role in facilitating trade on the e-commerce platform. Studies indicated that trust is a determinant for consumers in relation to online purchase intention [54]. Perceived institutional assurance operates as a trust-building mechanism for reducing risks [55]. Outstanding reputation therefore strengthens online shopping trust, and brand reliability has significant effects on each experience with a purchase decision [6,56]. In the decision phase, after passing through the stages of exposure and attention to the stimuli influenced by unique needs and experiences, consumers will be drawn to become highly selective and finally decide to purchase [53]. The purchase behavior occurs.

The vital aspect of the conceptualization of purchase intention is that consumers choose actions to maximize the desired consequences and minimize undesired outcomes [57]. For online purchasing behavior in educational services, consumer perception comes from the response to external stimuli, and the decision-making process involves the internal cognitive state, mainly reflecting consumer perceived value, one of the strongest determinants that drive consumer perceptions toward purchase intention. Compared to the traditional mode of shopping, online purchases indeed provide consumers with perceived value, including convenience, cost saving, time saving [58]. Price fairness and quality also play key roles with regard to tangible products, influencing perceived value that may lead to repurchase intention [4]. These benefits perceived by customers will result in high satisfaction and eventually loyalty [3,59,60]. Similarly, the more the positive experiences customers have in service quality, the higher the consumers' perceived value. Therefore, this study proposes:

Hypothesis 5 (H5). *Consumer perception mediates the effect of online service quality (i.e., REL, RSP, COP, and ENG, respectively) on online purchase intention in the field of online education companies.*

2.3. The Moderating Effect on Online Customer Referral

Online customer referral in this study refers to the comments, suggestions, reviews, and feedbacks that customers leave on the websites after online service consumption. If consumers have already transacted through an open market, consumers' self-efficacy is the result of their perception of accumulated satisfaction arising from experience across various open market websites. That is why those with online shopping experience are likely to have stronger willingness to buy again via an online open market [61]. Numerous studies explored the key traits of online service quality in different industries through content analysis of online customer comments. Some frameworks and models indicate critical factors of service quality on customers' perception. For example, Joseph et al. (1999) [62] proposed six factors in the e-banking sector, Loiacono et al. (2002) [18] explained 12 dimensions in online travel agencies, and Jun and Cai (2001) [63] introduced 10 dimensions in internet banking. Regardless of the different types of service, some determinants revealed by those previous studies overlap and fall into four key categories, which are utilized in this study (i.e., reliability, responsiveness, competence, and engagement).

Meanwhile, review sites and social media provide consumers with new platforms to share consumption experience. The feedbacks and comments left on the websites by those who are highly involved in the marketplaces have become important sources of information for other customers [64]. When the flux of online reviews causes information overload for customers to effectively make decisions, a reviewer's credibility plays a critical role in the valuation of their online messages [65,66], which in turn influence the evaluation of alternatives [67]. The perception of information credibility is mainly determined by source expertise [68] and trustworthiness [69,70]. An expert source provides consumers with correct information based on the source's consumption experiences and opinions on the website platforms. The degree of expertise is fairly assessed by the number of reviews

posted or the review content [71]. Studies indicated that comments provided by an expert source can be trusted and are more helpful, and thus influence purchase intention [72–74].

From the perspective of online sellers, understanding the primary dimensions of service quality that concern customers most will help make their companies more effective and appealing. From the perspective of online buyers, customer referral has become a key mechanism in reducing the uncertainty of online purchases for prospective customers. Based on the context, this paper proposes:

Hypothesis 6 (H6). *Online referral has moderating effects on the relationship between online service quality (i.e., REL, RSP, COP, and ENG, respectively) and consumer perception in the field of online education companies.*

3. Research Methods

Literature review and variable discussions were carried out in order to operationalize the constructs and build the questionnaire. A structured questionnaire was designed with two sections. The first section was about individual details including gender, age, occupation, and education. The second section contained 22 questions based on a 5-point Likert scale, which ranged from 1 (strongly disagree) to 5 (strongly agree). Questionnaires were distributed to people who enrolled in online courses in an English learning center. Responses from a total of 418 valid respondents were collected; 221 were female (52.9%) and 197 were male (47.1%). Most respondents (319 or 76.3%) were aged 18–30. A total of 308 (73.7%) had received an undergraduate degree, while 51 (12.2%) had a master's degree.

For the measurement model, several criteria were adopted to measure the reliability and validity of the research constructs. Bartlett's test (less than 0.05) and KMO-MSA (KMO > 0.5) indicated that the data were appropriate for factor analysis [75]. The standardized factor loading of all the item ranges was above the threshold limit of 0.6 [76]. The convergent validity could be assessed by the average variance extracted (AVE > 0.5) to assure that the latent variables could explain more than average [77,78]. Cronbach's alpha (>0.7) confirmed the internal consistency of the research construct. Composite reliability (CR > 0.7) showed that the variance shared by the respective indicators was robust.

For evaluation of the structural model, this study was conducted in three phases. Phase one assessed the direct effect of each independent variable on online purchase intention by using SPSS AMOS, and the outcome provided evidence for examining hypotheses 1 to 4. Phase two examined hypothesis 5 by using PROCESS Model 4, testing the significance of indirect effects of online service quality on online purchase intention through customer perception. The mediating effects show of the values of consumer perception falls between lower and upper bounds and 0 should be outside of the bounds at 95% confidence intervals.

Phase three tested whether a mediating process was conditional on other variables [79,80]. In other words, the indirect effect of online service quality on online purchase intention varies as a function of online customer referral, where customer referral is moderating the effect from online service quality to customer perception. This moderated mediation model was tested using the bootstrapping method in the PROCESS Model 7, which can analyze indirect effects simultaneously [81]. The basic idea to test the index of moderated mediation for significance is to consider the value of 0 being the null hypothesis. If 0 falls between the lower and the upper bound of the confidence interval, then it means that no moderated mediation takes place. If 0 falls outside the lower and the upper bound of the confidence interval, then the result shows evidence of moderated mediation. To support the moderation hypothesis 6, the statistically significant evidence of the interaction should be other than zero.

4. Results and Analysis

The value of KMO (0.894) and Bartlett's test ($p < 0.000$) indicated that the factor analysis was useful. Table 1 shows that factor loading of all the questionnaire items was higher than 0.6. All AVEs were greater than 0.5, and CRs were greater than 0.7. All Cronbach's alpha of

research items were higher than 0.7, which exceed the generally accepted guideline from Hair et al. (2011) [78]. The paper appropriately concluded that all of the questionnaire items showed a high degree of internal consistency and that their factors were appropriate to be used for further analysis.

Table 1. Reliability and Validity.

Research Items (Cut-Off Point)	Factor Loading (>0.6)	AVE (>0.5)	CR (>0.7)	Cronbach's α (>0.7)
Reliability	0.759~0.829	0.650	0.848	0.848
Responsiveness	0.623~0.877	0.586	0.806	0.800
Competence	0.775~0.840	0.648	0.846	0.845
Engagement	0.622~0.859	0.626	0.868	0.867
Consumer Perception	0.635~0.838	0.635	0.838	0.803
Online Customer Referral	0.705~0.860	0.585	0.808	0.838
Online Purchase Intention	0.777~0.877	0.690	0.869	0.883

Figure 2 below illustrates that Chi-square/df value of 0.826 was non-significant at the 0.05 level (p-value 0.933), meaning the model fit the data adequately. Meanwhile, good fit indices (RMSEA = 0.000; GFI = 0.973; AGFI = 0.962; CFI = 1.000) were satisfactory. Once the model fit well and was theoretically consistent, the interpretation of the parameter estimates and individual tests of significance of each parameter estimate was shown with a path diagram. RELIABILITY (β = 0.239; p = 0.000), RESPONSIVENESS (β = 0.300; p = 0.000), COMPETENCE (β = 0.183; p = 0.000), and ENGAGEMENT (β = 0.140; p = 0.002) had directly significant influences on the ONLINE PURCHASE INTENTION and therefore supported H1, H2, H3, and H4.

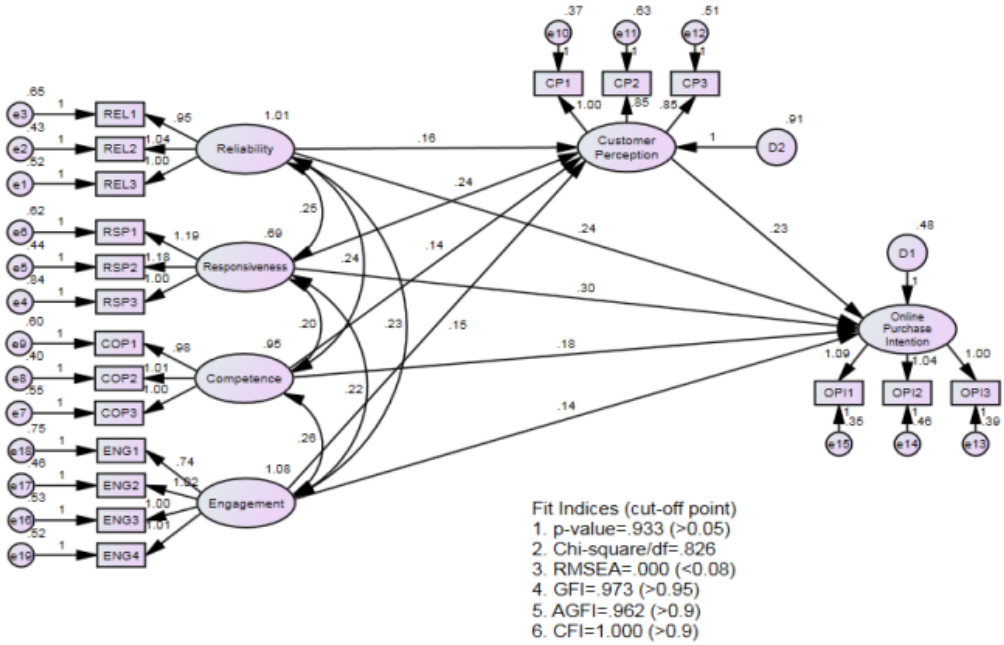


Figure 2. Illustration of the Model.

Meanwhile, PROCESS Model 4 examined the indirect effect of XOSRVQUL (i.e., online service quality = combined reliability, responsiveness, competence, and engagement) on OPI (i.e., online purchase intention) that went through MCP (i.e., consumer perception). The coefficient of the mediating path (indirect effect = 0.1366; SE = 0.0284) fell between lower and upper bounds (CI = [0.0833, 0.1951]) and 0 fell outside of the bound at 95% confidence

intervals, which represented a significant indirect effect at $p < 0.05$. The hypothesis of H5 was supported.

Moderated mediation was examined by PROCESS Model 7 with the bootstrapping method. The effect of XOSRVQUL (i.e., online service quality) on MCP (i.e., customer perception) for cases falling at the mean on WOCR (i.e., online customer referral) was statistically significant (b = 0.3645; SE = 0.0761; p = 0.0000; 95% CI = [0.2149, 0.5140]). The effect of WOCR on MCP at the mean on XOSRVQUL was statistically significant (b = 0.1179; SE = 0.0502; p = 0.0193; 95% CI = [0.0193, 0.2166]). The interaction (XOSRVQUL×WOCR) illustrated statistical significance (b = −0.2081; SE = 0.0556; p = 0.0002; 95% CI = [−0.3174, −0.0987]). The above results showed that a moderated mediation pattern existed in the model, supporting the Hypothesis 6.

Furthermore, the conditional indirect effect was examined by dividing the participants into different groups according to their levels of WOCR based on standard deviation. Figure 3 shows the interaction chart between MCP on XOSRVQUL at different levels (±1 standard deviation) of WOCR. All three slopes were positive and statistically significant. Line 2 addressed WOCR at mean, reflecting no effect of WOCR. At this level of WOCR, the relationship between MCP on XOSRVQUL was positive. This relationship became stronger with one standard deviation below the mean on WOCR, as Line 1 showed. One standard deviation above the mean on WOCR reflected by Line 3 had the weakest positive slope.

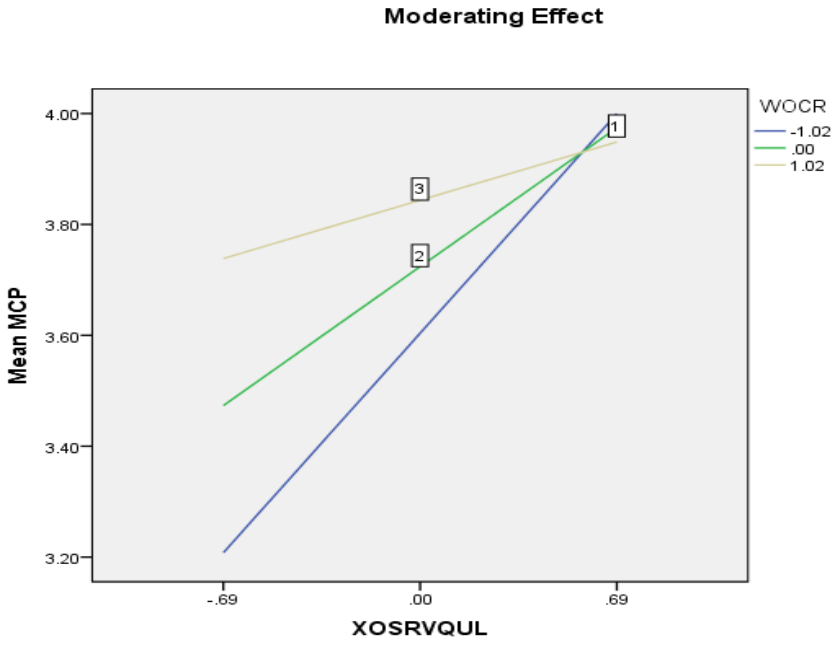


Figure 3. Interaction chart for different levels (±1 standard deviation) of WOCR.

5. Discussion

The purpose of this study was to understand how online customer referral and customer perception jointly influence the relationship between the core components of online service quality and online purchase intention. Customer perception has been traditionally accepted as a theoretical perspective that has significant correlations with purchase intention [82]. Research in the services industry has shown how the service is performed to influence customers' perception of service quality [83]. Applying to online marketplaces, many studies provide better explanations for consumers' purchase intention through customer perception. More specifically, the findings of this paper are consistent with conclusions in the existing literature that customer perception mediates the relationships between service quality with purchase intention [16,84].

E-commerce has rapidly developed and marketing has dramatically changed in the past decade. It has cemented its position as the most popular format for purchases. In

an e-commerce-driven world where customers cannot physically experience products or services before purchasing, many customers turn to online reviews. The findings of a recent study with a large-scale field experiment involving 100,000 customers on online customer referral in the context of consumer behavior have practical significance [85]. While drawing attention as a new research field, databases on the Web of Science platform show that only a small number of studies relating to online customer referral in the past 5 years were conducted, which tended to emphasize its direct effect on focal subjects, including purchase decisions [86], purchase intention [87], brand perception [88], customer engagement [89,90], and preferences and choices [91].

This study extensively considered online customer referral a moderating role that indirectly affects customer perception, and therefore purchase intention. Given that online customers commonly refer to both product or service information and online reviews simultaneously, the findings of this study suggest that online customer referral has become an essential source of influence on customer perception. Traditionally, offline word of mouth (WOM) is a powerful marketing method to reach new customers. Nowadays, e-WOM (i.e., online referrals) can contribute to offline sales. The Consumer Review Survey in 2020 shows that 87% of consumers read online referrals for business information [7]. The findings indicate that referrals with a high star rating or a positive sentiment have a significant impact on consumers' perception to purchase, so it is vitally important to ensure that positive reviews are in top shape. While WOM can be still a great way to make new customers aware of their business, companies in online marketplaces need a good online reputation to attract those online referrals and turn them into new customers.

5.1. Theoretical Implications

This study contributes to the existing literature in three ways. First, while examining the relationship between online service quality and online purchase intention, most existing studies mainly focused on the retail [20,92], banking [93], and travel [94] sectors. They developed different key quality dimensions to assess the customer perception of quality [95]. This study is an addition to the scarce research on the online education industry and proposes four dimensions (i.e., reliability, responsiveness, competence, and engagement) based on a review of the literature on online service quality. The results show significant relationships between online purchase intention and these four components, respectively.

Second, customer perception was regarded as a psychological factor that is involved in the purchase decision process. Past research has examined the effects of various perceptual processes (perceived value, perceived risk, etc.) on consumer behavior [3–6]. This study explored the mediating effect of customer perception on the relationship between online service quality and online purchase intention. Consistently, the findings support the mediation hypothesis and contribute additional evidence for testing this link in online education sectors.

Third, this study extends existing research by examining the moderating effect of online customer referrals on the indirect effect of online service quality on purchase intention through customer perception (Hypothesis 6). Hayes (2018) [96] suggests that moderating mechanisms need to consider boundary conditions that will provide insights into the scientific inquiry of a causal process. In this study, a significant indirect effect was found, namely, that online customer referrals help protect online English learners from the adverse effect of service quality on customer perception, and subsequent effect on purchase intention. Different levels of credibility of online reviews play an important role in the evaluation process, including negative versus positive reviews along with the profile of the reviewer. Specifically, those with higher experience levels in this regard were considered more reliable and trustworthy. From this perspective, while online referral is taken as a direct variable in numerous studies, this paper identified it as a moderating factor and therefore makes a theoretical contribution by providing insight into the conditions under which the effect of online service quality on customer perception is indirectly and significantly moderated by online referrals.

5.2. Practical Implications

Using the Kano model to explore the online English learners' context and overall experience helped identify features and attributes of online service quality. The findings of this study classified the four components (i.e., reliability, responsiveness, competence, and engagement) as the essential threshold attributes that might satisfy online English learners' expectations. Among them, responsiveness with the intercept ($\beta = 0.300$) weights the highest value, indicating that online English companies can largely invest in this attribute combining the other three with effective and innovative ideas for improving service.

Furthermore, it is fair to say that nowadays almost all of customers read through online referrals before making a purchase. A survey conducted by CMSWiRE in 2018 showed 86% of customers read online reviews, while 40% were turned away because of negative reviews. This tendency makes online referrals a critical part of running a business. The outcome of this study practically indicates that business owners should develop an effective online referral management and strategy.

Some issues in this study were cause for concern. The e-questionnaire was distributed to respondents who had participated in English courses and soon afterward wrote reviews on different types of social media (e.g., Facebook, Instagram) regarding the English center. Potential concerns may arise if using cross-sectional samples, as different categories of online education companies may discover a more comprehensive construction of the possible predictors for online customers to perceive online service quality. Future research may explore more attributes of online service quality with different learning subjects (e.g., music, math, art).

In addition, as the overall population in this study was composed of online learners from one online English company, the issue of homogeneous convenience sampling should be taken into consideration. Future research may expand the scope to a larger online population of various online learning companies.

Finally, the outcome of this study showed that online referrals play a critical role in purchase intention in the e-commerce market. When these online referrals are a significant factor in searching ranking algorithms and thus have a major impact on sales, they also create powerful incentives for online sellers to manipulate their products' rankings through fake positive reviews. On the other hand, disgruntled individuals or competitors may create fake negative reviews to lower the business's rating. In response to this issue, further studies may focus on topics such as internal facets (e.g., Are certain types of products, services, markets, or situations more prone to fake reviews? What are the effects of fake reviews on the development of online review platforms), and external aspects (e.g., Can the role of regulators effectively respond to fake reviews? Are there cultural differences in the postings of and responses to fake reviews?).

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