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Navigating the Learning Landscape: Social Cognition and Task-Technology Fit as Predictors for MOOCs Continuance Intention by Sales Professionals

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Abstract

Massive open online courses (MOOCs) have gained popularity among sales professionals who use them for self-directed learning and upskilling. However, research related to their intentions to continue learning is scarce. Drawing from the social cognition theory, this research aimed to address this gap by investigating the role of task-technology fit, self-development, and social recognition in sales professionals' continued use of MOOCs. The study hinged on empirical research and used a survey to collect data from 366 sales professionals. The results suggest that task-technology fit, self-development, and social recognition play a significant role in sales professionals' continued use of MOOCs. The study has practical implications for organizations promoting employee learning and development. The findings provide valuable information for MOOC designers and providers to develop more effective courses that meet the needs of sales professionals.

Keywords: self-directed learning, MOOC, sales professional, social cognition theory, self-development, social recognition, task-technology fit, continued intentions

Introduction

Massive open online courses (MOOCs) have gained immense popularity among learners worldwide due to the development of information and communication technologies. MOOCs complement traditional classroom teaching and learning, making education more accessible to learners from all walks of life (Shao, 2018). Tseng et al. (2022) have discussed how technological advancements can enhance the effectiveness of education, thereby increasing students' efficiency. However, despite numerous benefits, MOOCs have some limitations, such as issues with access, modularity, and benefits to learners and providers (Celik et al., 2020). The dissimilarities between MOOCs and traditional learning setups can be attributed to learner behavior, instructional design, evaluation patterns, and interactions between participants and instructors (Celik et al., 2020).

Studies have reported the worth and possible uses of MOOCs in higher education, human resource development, workplace learning, and professional sales training (Celik et al., 2020; Park et al., 2018; Rollins et al., 2014; Shapiro et al., 2017; Tseng et al., 2022). Sales professionals indulge in self-directed learning as evident from earlier research (Lassk et al., 2012). However, few studies have investigated the intentions of sales professionals to use MOOCs for self-development and upskilling through self-directed learning. Sales professionals learn new skills through self-directed learning initiatives such as participating in forum discussions and social media engagement (Conde et al., 2021). To better understand voluntary participation in MOOCs, previous studies have investigated the factors influencing learners' continued intentions to use MOOCs (Kuo et al., 2021; Milligan & Littlejohn, 2017; Wan et al., 2020). For instance, the successful completion of MOOCs largely depends on learners' ability to direct their efforts toward accomplishing learning goals (Milligan & Littlejohn, 2017). Furthermore, corporate-sponsored training programs result in limited learning for sales professionals (Conde et al., 2021). Also, neglecting social aspects may also limit the ability of the model to ascertain continued intentions of users (Wan et al., 2020). MOOCs for self-directed learning and upskilling have become increasingly popular among sales professionals. Task-technology fit (TTF), self-directed learning skills, and social recognition are other factors that can influence learners' continued use of MOOCs (Kuo et al., 2021; Wan et al., 2020; Wu & Chen, 2017; Zhou, 2016). Sales professionals employed in various organizations undertake self-directed learning assignments due to intrinsic and extrinsic motivation factors stemming from their social cognition. Individuals exhibit social cognition based on the learnings received from others (Bandura, 1986). Similarly, sales professionals undertake learning assignments due to similar behavior observed among their peers and their past experiences with such assignments (Olsson, 2016).

However, the translation of such intent into continued intention needs further investigation. This research endeavored to address this gap by exploring the role of TTF, self-directed learning skills, social recognition, and perceptions of learning in sales professionals' continued use of MOOCs. We examined the following research question: What are the key factors that influence the continued intentions of sales professionals to use MOOCs, and to what extent do they predict it?

This study provides theoretical and practical contributions to e-learning in the workplace, with implications for both MOOC developers and providers and sales professionals seeking to enhance their self-development and upskilling through self-directed learning. Identifying these key factors provides a better understanding of the motivators that drive professionals in these fields to participate in MOOCs. Our results will be useful in designing more effective MOOCs that meet their needs. Additionally, understanding the extent to which self-directed learning skills predict the continued use of MOOCs

among sales professionals and the types of self-directed learning skills that are most critical for them provides useful information to MOOC designers and providers on how to structure and design their courses to meet the needs of these learners.

Moreover, investigating how social recognition impacts the continued use of MOOCs by sales professionals and identifying the most meaningful forms of social recognition are useful for MOOC designers and providers in enhancing the social recognition mechanisms in their courses. Furthermore, investigating how sales professionals perceive the differences between MOOCs and traditional learning setups and how this perception affects their intentions to use MOOCs contributes to the existing literature on learner behavior. It helps bridge the gap between the two learning setups. The research also offers insights for sales professionals on the advantages and disadvantages of MOOCs over traditional learning setups, helping them make informed decisions when choosing between the two.

Literature Review

Research on MOOCs for Working Professionals

The professional development of working professionals has become increasingly digitized (Griffiths et al., 2022). Various courses and learning opportunities are available over digital platforms for working professionals' development (Greenhow & Lewin, 2016). Owing to the increasing demand for competence and skills among working professionals, there is an impetus toward professional development in organizational settings (Olsson, 2016). Various studies have explored MOOCs for human resource professionals (Radford et al., 2014), teachers (Castaño-Muñoz et al., 2018; Koukis & Jimoyiannis, 2019), and physical education teachers (Griffiths et al., 2022), and for the professional development of working professionals (Olsson, 2016; Park et al., 2018). In their investigation, Radford et al. (2014) found that many employees were taking up MOOCs for professional and self-development. They also found organizations to be keen on providing financial assistance to their professionals for taking up MOOCs, provided they complete the course and can deliver heightened results. Park et al. (2018) explored MOOCs in organizational settings leading toward employees' professional development. The study found that the MOOCs administered for human resource development can yield positive results by contributing to the organization's and employees' professional development. The practice of undertaking MOOCs may lead to the professional development of learners as the platform is mobile, accessible, and personalized, and provides the learners with the autonomy to complete the course through the learner's self-motivation and at minimal cost.

Social Cognitive Theory

According to Bandura (1986), the social cognitive theory (SCT) examines how intrinsic psychological motivations and external environmental factors combine to affect human behavior through interactions. Furthermore, "SCT estimates the ability of an individual to engage in a targeted behavior, based on internal and external parameters and their interrelationships" (Martin et al., 2014, p. 2). The SCT consists of three aspects: individual factors, environmental factors, and actual behavior (Hosen et al., 2021). External environmental factors, such as social relationships, recognition, and intrinsic motivations such as personal achievement and self-development, impact an individual's behavioral intention (Hosen et al. 2021; Liu et al., 2022; Wang & Wu, 2008). The interaction influence of intrinsic motivation and the underlying external environmental factors determine the behavior of individuals

(Cooper & Lu, 2016). The SCT has been applied to various studies concerning online teaching-learning environments with its application in studies related to self-regulated learning (Zhang et al., 2022), self-efficacy, learning engagement, and academic emotions (Kuo et al., 2021), and self-betterment and learning intentions (Kim et al., 2021; Mısır & Işık-Güler, 2022). Bussey and Bandura (1999) concluded that people contribute to their self-development through actions provided they are versed with the processes. The role of self-efficacy in users' choice processes leads to their self-development based on their potential. Consistent with the debate of extant literature on SCT, individuals participate in MOOCs with a pre-determined objective to achieve some outcome (Kim et al., 2021; Mısır & Işık-Güler, 2022). Individuals' intentions to participate are often associated with accomplishing or enhancing their repute (Moghavvemi et al., 2017). Self-development can help individuals achieve their outcomes (Liu et al., 2022). Consequently, social recognition can be the external factor motivating individuals (Wu & Chen, 2017). Bandura's (1986) social cognitive theory focuses on the idea that individuals learn from observing others, and social recognition is an important aspect of this process. However, measuring one's need for social recognition is a complex task involving subjective experiences and perceptions. These are assessed using individuals' self-perceptions of their desire for social approval, recognition, and belonging through social recognition and self-development scales. Earlier studies have reported using the SCT in various contexts, but scant literature is available on sales professionals' uptake of MOOCs for self-development and social recognition.

Task-Technology Fit (TTF)

Successfully adopting and using any technology depends on identifying the tasks to be performed and the fit between the task and the technology. TTF in this regard identifies an individual's performance and their capabilities to complete the task (Goodhue & Thompson, 1995). The framework uses technology characteristics, task characteristics, and TTF as three main factors for determining an individual's performance and use (Wan et al., 2020). The TTF model specifies the actual use of technologies by users, along with the fit between the task and the technology. Earlier studies have used TTF in various contexts, but few researchers have studied its influence with regards to MOOCs (Wan et al., 2020; Wu & Chen, 2017). The task and technological characteristics significantly affect users' performance and use of the technology.

Learning Initiatives by Sales Professionals

The increase in client demand for customized business solutions has mandated that sales professionals maintain an expert's working "knowledge base" (Artis & Harris, 2007; Homburg et al., 2002). Additionally, organizations expect their sales professionals to master new technologies and techniques to be more responsive, self-starting, autonomous, and efficient in performing their duties (Hunter & Perreault, 2006). Artis and Harris (2007) proposed the concept of self-directed learning for sales professionals, supplementing sales training received through the organization and traditional educational methods to improve performance. Studies have investigated the usefulness of social media as a learning orientation tool for sales professionals (Itani et al., 2017). Knowles (1975) defined self-directed learning as "a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources, choosing and implementing appropriate learning strategies, and evaluating learning outcomes" (p. 18).

Furthermore, self-learning gives learners more control over their purpose, process, and results (Knowles et al., 2020). Self-directed learning usually involves salespeople pursuing education through

additional and optional sources, such as reading materials, whitepapers, and participation in online independent study courses (Lassk et al., 2012). Organizations may encourage their sales professionals to voluntarily participate in third-party asynchronous online courses (Lassk et al., 2012). Since MOOCs are a type of self-directed learning assignment, sales professionals enroll for such courses based on a personal or organizational goal. Participation in MOOCs by sales professionals for achieving personal goals may be a part of self-development by an individual to excel and grow in their career.

Hypotheses Development

Based on the literature review and understanding of sales professionals' use of MOOCs, this research set out to investigate the key factors influencing their continued intentions to use MOOCs and explore the role of TTF, self-directed learning skills, social recognition, and perceptions in the process.

The expected rewards achieved by an individual participating in MOOCs, such as learning and improving skills, are forms of self-development (Nov et al., 2010; Shao, 2018). MOOCs allow participants to engage in online forums with instructors, teaching assistants, and fellow learners (Shao, 2018). The sharing of knowledge and ideas and the learners' collective contribution can benefit the individuals' self-learning process, exploring other areas and applying existing knowledge (Shao, 2018). Furthermore, according to Nov et al. (2010), participation in online communities results in acquiring new knowledge from fellow users. Apart from this, the self-study materials available with online courses aids self-development (Sablina et al., 2018). An individual's behavior is also influenced by intrinsic motivations, such as self-development, which helps them perform and achieve (Hosen et al., 2021; Zhang et al., 2022). Also, the skills and knowledge gained from online resources improve learning efficacy and assist in individual development (Kim et al., 2021). Therefore, we propose this hypothesis:

> H1. Self-development positively influences the perceived usefulness of MOOCs for sales professionals.

Recognition can be a driving force for sales professionals to engage in skills enhancement through MOOCs. Social recognition also helps individuals realize their abilities and facilitates social interaction among learners in an online course. Learning initiatives help sales professionals develop new skill sets and foster relationships in their careers. External factors, such as social recognition and relationships, influence individuals' behavior (Hosen et al., 2021; Zhang et al., 2022). Sales professionals undertaking MOOCs may be motivated by future career growth, learning new skills, strategies, and technologies, and better pay and reward structure, among other influences. Organizations also encourage sales professionals to undertake online courses for skills enhancement (Lassk et al., 2012). Owing to the social recognition offered to individuals, the usefulness of enrolling in MOOCs also increases. Therefore, we propose this hypothesis:

> H2. Social recognition positively influences the perceived usefulness of MOOCs for sales professionals.

To understand the continued intentions of sales professionals to use MOOCs for self-development, we must understand their motivations and ability to conduct task-oriented activities linked to the device. TTF explains the correlation between information technology and individuals' performance (Goodhue & Thompson, 1995). Researchers have investigated TTF from various standpoints related to MOOCs (Wu & Chen, 2017), healthcare (Wang et al., 2020), and retail (Khashan et al., 2023). Previous research has suggested that TTF positively influences perceived usefulness (Alyoussef, 2021; Rahi et al., 2021;

Wan et al., 2020; Wu & Chen, 2017)—perceived usefulness is one factor contributing to a user's perception of technologies. As pointed out, perceived usefulness is affected by TTF (Wan et al., 2020), meaning that a higher fit between task and technology can lead to a perception of usefulness for that tool. In the case of MOOCs, sales professionals find a fit between the task and the technology. Therefore, we propose this hypothesis:

> H3. Task-technology fits positively influences the perceived usefulness of MOOCs for sales professionals.

Perceived usefulness measures learners' beliefs that MOOCs effectively enhance their performance (Singh & Sharma, 2021; Wu & Chen, 2017). Furthermore, the easy accessibility of MOOC platforms over the Internet through web browsers provides individuals with a means to enhance their skills and performance (Wu & Chen, 2017). Perceived usefulness remains a vital indicator for investigating the behavior of individuals in learning environments (Singh & Sharma, 2021). While individuals' initial acceptance and participation in MOOCs can be explained through technology acceptance, investigating individuals' motivation for continued use requires further research. To enroll in MOOCs, internal and external environmental factors such as self-development and social recognition drive sales professionals. For the present study, satisfaction influences sales professionals' continued intentions to use MOOCs. Perceived usefulness explains the initial acceptance (Venkatesh & Davis, 2000); satisfaction provides a path for examining the route from initial acceptance to confirmation and continued intentions (Bhattacherjee, 2001).

Studies have examined the influence of perceived usefulness on satisfaction (Filieri et al., 2021; Singh & Sharma, 2021; Yan et al., 2021). Filieri et al. (2021) investigated the continued intentions of consumers toward online tourism services. The study revealed that usefulness influences customer satisfaction, further impacting their continuance usage. Similarly, in the context of mobile health apps, the perceived usefulness of the apps led to satisfaction and further continued intentions of its users. Singh & Sharma (2021), in their study on MOOCs as an internship alternative, provided support for the relationship between perceived usefulness and satisfaction. Few studies were conducted in different online service settings and, hence, lacked the understanding of sales professionals enrolling for MOOCs and their continued use. Thus, we propose this hypothesis:

> H4. Perceived usefulness positively influences the satisfaction of sales professionals using MOOCs.

Next, concerning the relationship between perceived usefulness and continued intentions, studies have shown a positive relationship (Daneji et al., 2019; Huang & Ren, 2020; Wu & Chen, 2017). Daneji et al. (2019) indicated a positive relationship between the perceived usefulness of MOOCs and the intentions of individuals to continue to use these courses. In the case of mobile health apps, a similarly significant relationship between perceived usefulness and consumers' continued intentions was reported (Huang & Ren, 2020). A study by Cho et al. (2009) explored the influence of perceived usefulness and satisfaction on continued intentions for self-paced e-learning tools. The results indicated a significant relationship between perceived usefulness and satisfaction with the learners' continued intentions for the e-learning tools. Thus, we developed this hypothesis:

> H5. Perceived usefulness positively influences continued intentions to use MOOCs by sales professionals.

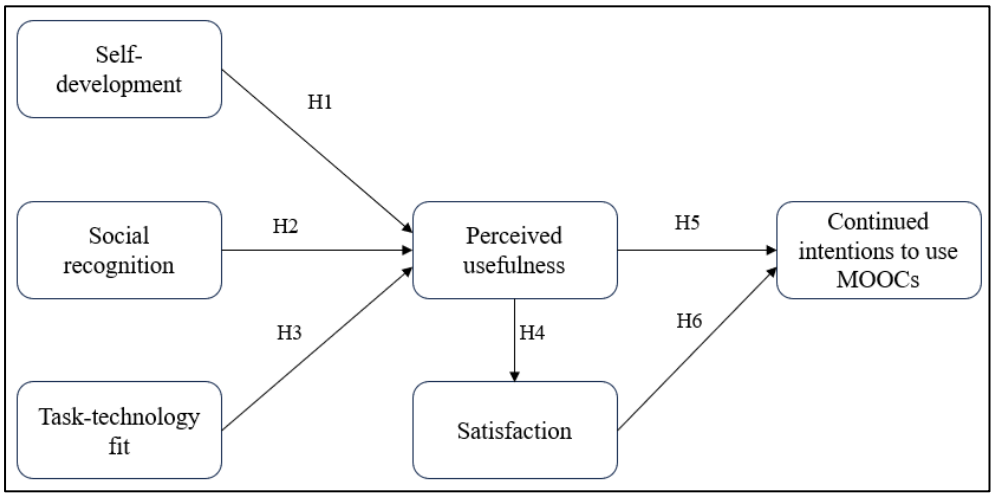
While studies have reported the relationships between the variables for either credit or non-credit-receiving individuals, no specific study has reported it for sales professionals. As discussed earlier, motivations for sales professionals to enroll in MOOCs might differ depending on educational settings. Sales professionals enrolling in MOOCs do so for various benefits related to career advancement, better pay packages, and learning new skill sets and technology. Hence, the influence of MOOCs' perceived usefulness plays an important role in determining satisfaction and continued intentions. Therefore, we propose this final hypothesis:

> H6. Satisfaction positively influences continued intentions to use MOOCs by sales professionals.

The proposed research model with the hypothesized relationships for the study is mentioned in Figure 1.

Figure 1

Proposed Research Model



Method

Participants and Procedures

The respondents to our survey were sales professionals working with organizations with roles and responsibilities related to business and industrial sales and marketing. The study sought to investigate the continued intentions of sales professionals to use MOOCs as a learning tool for gaining expertise and skills, self-development, and career enhancement. Business-to-business, industrial, or channel sales professionals require skills and expertise to close a sales call (Artis & Harris, 2007; Hunter & Perreault, 2006). In doing so, they may need to update their learnings and acquaint themselves with new technologies and marketing strategies (Rollins et al., 2014). We relied on a trade directory procured from a trade and commerce association to recruit participants. Upon contacting the sales offices of industrial manufacturers and service providers, we conducted thorough discussions with managers to gain access to their sales professionals. The sales professionals recruited for the study were directly involved in business and industrial product and service sales, having been in a similar role for more

than two years. Furthermore, participants had previously used MOOCs for self-development and career enhancement.

Data collection was carried out from April to June 2023. Given the focus of the study to investigate the continued intentions of sales professionals to study in a MOOC, prior experience with MOOCs was considered a mandatory requirement for completing the questionnaire. Given the requirement of understanding the participants' intentions to continue using MOOCs, a face-to-face briefing was preferred over online recruitment. Ten associates were tasked with briefing the participants about the study, explaining the objectives of the research and creating consensus for participation. During the briefings, participants were informed about these aspects of the study: confidentiality and anonymity of the collected responses; unpaid participation; and, no compulsion for participation.

Instrument

The research used validated instruments from earlier studies (Daneji et al., 2019; Filieri et al., 2021; Hosen et al., 2021; Shon et al., 2021; Wan et al., 2020; Wu & Chen, 2017; Zhang et al., 2022) to measure the latent constructs (Fowler, 2002) (See Appendix). Self-administered questionnaires reduced risk related to the reliability of the data and eliminated differences emerging from questions and their representation (Fowler, 2002). The survey targeted the sales professionals' views on technologies and skills, self-development, increments, promotion, and career advancement.

The questionnaire consisted of 20 closed-ended multiple-choice questions. A 7-point Likert scale was employed, with responses ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Four experts from the areas of sales management and information systems established the face validity of the questionnaire. Acting on their directions, rewording a few items, and piloting the instrument with a small group increased the questionnaire's effectiveness and clarity. Based on the pilot, the time for completion of the questionnaire was noted and an introduction was added to familiarize respondents with the purpose of the research.

The survey was administered among consenting sales professionals in organizations primarily responsible for sales functions. The research employed purposive sampling as sales professionals using MOOCs for skills enhancement and self-development were considered for the study. Out of the 550 questionnaires sent out, 421 were returned. Fifty-five responses contained missing data and fields; after discarding these, 366 (66.5% response rate) were considered for the study.

Data Analysis

The study analyzed the data using two-step structural equation modeling (SEM). SEM enables estimating the multiple and interrelated dependent relationships among latent constructs with multiple indicators (Hair et al., 2019). Using a priori theory, the measurement model was developed, indicating the relationships between the target variables followed by confirmatory factor analysis (CFA). Further path analysis was conducted by testing the significance of the hypothesized relationships.

Results

Sample

The profile of the 366 respondents is shown in Table 1. Just under half of the respondents were females with more than half belonging to the ages between 26 to 41 years. As all the respondents were sales professionals, their experience in the domain varied from 2 years to 20 years with over half of them having sales experience between 5 and 20 years. More than three quarter of respondents had bachelor's education and above. The nomenclature for the educational qualifications is as per the Indian education system wherein a postgraduate degree constitutes a master's program and post-graduate diploma programs offered by institutions and universities. The detailed demographics are presented in Table 1.

Table 1

Demographic Characteristics of Participants

Characteristic	*n*	%
Gender		
Male	191	52.2
Female	175	47.8
Age group		
18–25	64	17.5
26–33	102	27.9
34–41	109	29.8
42–49	51	13.9
50–57	21	5.7
58 and above	19	5.2
Work experience		
< 2 years	24	6.6
2–5 years	117	32.0
5–10 years	112	30.6
10–20 years	104	28.4
> 20 years	9	2.5
Education		
Non-matriculation (education below 16 years of age)	12	3.3
Matriculation (education up to 16 years of age)	27	7.4
10+2/Intermediate (education up to 18 years of age)	44	12.0
Graduate (bachelor's degree)	150	41.0
Postgraduate (master's degree)	133	36.3

Note. N = 366.

Measurement Model

Two indicators (SR3 = 0.423, TTF4 = 0.466) were deleted after the first CFA due to very poor standardized regression weights (Hair et al., 2019). The new CFA results provided an acceptable fit for the data set and measurement model with χ^2/df = 1.039, CFI = 0.995, GFI = 0.906, NFI = 0.929, RMSEA = 0.018, and an incremental fit index of 0.996. The Cronbach's alpha values ranged from 0.863 to 0.934, indicating good reliability with the AVE values providing adequate convergent validity (Hair et al., 2019). See Table 2 for details of the CFA. The discriminant validity was examined using Fornell and Larcker's (1981) approach and comparing the square root of AVE and its correlations with other constructs. The discriminant validity of all the constructs was established, as shown in Table 3.

Table 2

Results of Confirmatory Factor Analysis of the MOOC Continuance Survey

Construct	Item	Factor loading*	Cronbach's alpha	CR	AVE
Self-development (SD)	SD1	0.800	0.898	0.901	0.661
	SD2	0.822			
	SD3	0.819			
Social recognition (SR)	SR1	0.847	0.877	0.878	0.678
	SR2	0.832			
	SR4	0.824			
Task-technology fit (TTF)	TTF1	0.817	0.894	0.894	0.662
	TTF2	0.824			
	TTF3	0.821			
	TTF5	0.789			
Perceived usefulness (PU)	PU1	0.821	0.901	0.902	0.687
	PU2	0.818			
	PU3	0.814			
Satisfaction (SAT)	SAT1	0.826	0.863	0.870	0.692
	SAT2	0.842			
	SAT3	0.817			
	SAT4	0.811			
Continued intentions to use MOOCs (CI)	CI1	0.900	0.934	0.935	0.788
	CI2	0.896			
	CI3	0.890			

Note: N = 366. CR = composite reliability; AVE = average variance extracted.

* These are standardized regression weights as per a six-factor measurement model.

Table 3

Discriminant Validity Testing of the MOOC Continuance Survey

Construct	1	2	3	4	5	6
1. Self-development	(.762)					
2. Social recognition	.623**	(.919)				
3. Task-technology fit	.578**	.539**	(.882)			
4. Perceived usefulness	.591**	.689**	.443**	(.720)		
5. Satisfaction	.485**	.357**	.436**	.502**	(.854)	
6. Continued intentions to use MOOCs	.681**	.637**	.588**	.595**	.537**	(.832)

Note: Square root of AVE is given on the diagonal in brackets.
**$p < .01$.

Structural Model

The proposed model provided an adequate fit based on the output results ($\chi^2/df = 1.564$, CFI = 0.963, NFI = 0.919, incremental fit index = 0.971, RMSEA = 0.057). Self-development, social recognition, TTF, perceived usefulness, and satisfaction explained 83.45% of the variance of continued intentions to use MOOCs (Hu & Bentler, 1999).

Examining the path loading for the hypothesized model revealed that three factors positively influenced perceived usefulness: self-development ($\beta = .139$; $p \leq .001$); social recognition ($\beta = .485$; $p \leq .001$); and TTF ($\beta = .591$; $p \leq .005$), thus supporting H1, H2, and H3. Perceived usefulness positively influenced satisfaction ($\beta = .357$; $p \leq .001$) and continued intentions to use MOOCs ($\beta = .521$; $p \leq .001$), thus supporting H4 and H5. Satisfaction also positively influenced continued intentions to use MOOCs ($\beta = .263$; $p \leq .005$), supporting H6. See Table 4. Also the path loadings for the hypothesized research model are shown in Figure 2.

Table 4

Results of the Structural Equation Modeling of the Research Hypotheses

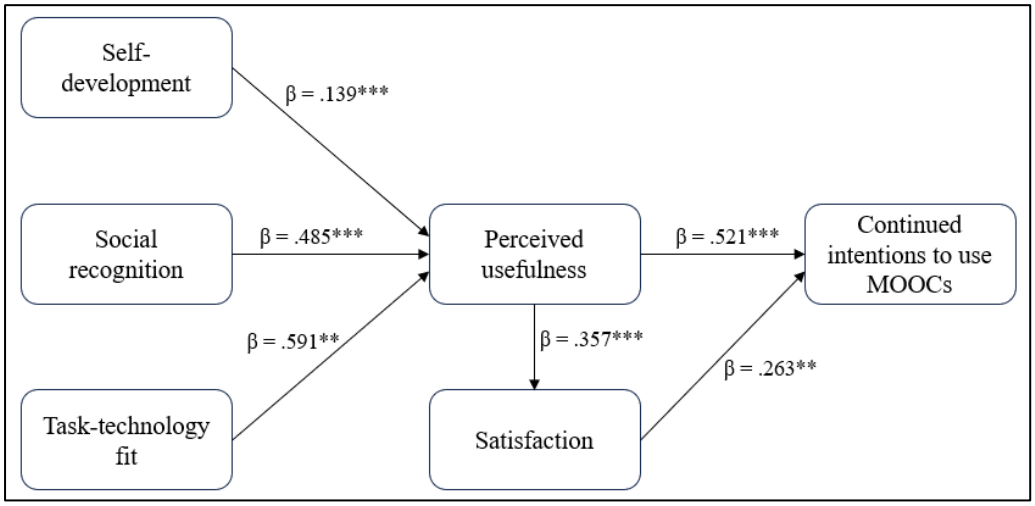
Path	Coefficient	*t*	*p*	Result
H1: SD → PU	0.700	5.837	.001	Supported
H2: SR → PU	0.362	4.102	.000	Supported
H3: TTF → PU	0.589	8.693	.003	Supported
H4: PU → SAT	0.288	3.454	.000	Supported
H5: PU → CI	0.544	8.204	.000	Supported
H6: SAT → CI	0.235	3.767	.002	Supported

Note. H = hypothesis; SD = self-development; PU = perceived usefulness; SR = social recognition; TTF = task-technology fit; SAT = satisfaction; CI = continued intentions to use MOOCs.

The Sobel test was used to examine the significance of the mediating effect of satisfaction on the relationship between perceived usefulness and continued intentions ($z = 5.66$, $p \leq .05$).

Figure 2

Path Loadings for the Hypothesized Model



Note: **$p < .005$. ***$p < .001$.

The examination of variance depicted the R^2 of perceived usefulness and satisfaction as 37.4% and 62.6%, respectively, with 78.2% for continued intentions, demonstrating a good explanatory power of the research model.

Discussion

This study focuses on understanding the antecedents responsible for sales professionals continued intentions to use MOOCs. The research results have implications for sales professionals and organizations that seek to promote their learning and development.

The study's first hypothesis, that self-development positively impacts the perceived usefulness of MOOCs for sales professionals, is supported, indicating that individuals participate in MOOCs for self-development, to learn new skills, and to improve their existing knowledge (Hosen et al., 2021; Kim et al., 2021; Zhang et al., 2022). The first hypothesis has a strong positive relationship compared to the rest. The sharing of ideas and the collective contribution of learners can benefit the self-learning process, leading to a positive perception of the usefulness of MOOCs. The results also support the influence of social recognition on the perceived usefulness of MOOCs for sales professionals and align with the earlier studies (Hosen et al., 2021; Lassk et al., 2012; Zhang et al., 2022). This attests to the argument that individuals' exhibited behavior is influenced by their observations of others (Bandura, 1986; Martin et al., 2014). In this research, we show that sales professionals undertake self-directed learning initiatives based on their intrinsic motivations stemming from a desire for career advancement along with extrinsic factors influenced by peer networks. Among other influences, sales professionals undertaking MOOCs may be motivated by future career growth, new skills, strategies, and technologies. Organizations also encourage sales professionals to undertake online courses for skills enhancement.

This external motivation, combined with the social recognition offered to the individuals, increases the usefulness of enrolling in MOOCs.

The second hypothesis suggests the influence of social recognition on perceived usefulness of MOOCs by sales professionals. The results support this hypothesis, indicating that sales professionals sometimes take MOOCs for social recognition among their peers, work colleagues, and other social groups.

The third hypothesis suggests that the TTF has a favorable effect on the perceived usefulness of MOOCs for sales professionals. The study results support this hypothesis, indicating that a greater fit between the task and the technology helps individuals perceive the system as more useful, leading to continued participation in MOOCs. The results demonstrated a strong relationship between these factors. Similar results have been found in past research on TTF and its influence on the perceived usefulness of MOOCs (Wan et al., 2020; Wu & Chen, 2017). When comparing MOOCs to traditional classroom settings, MOOCs provide individuals with greater control, interactive features, better navigation and search, and communication with other learners, facilitators, and instructors.

This study also examines the relationship between perceived usefulness, satisfaction, and continued intentions. Perceived usefulness measures learners' beliefs that MOOCs are an effective means to enhance their performance. The study findings indicate that satisfaction influences sales professionals' continued intentions to use MOOCs. The results concur with earlier studies conducted in various contexts (Filieri et al., 2021; Singh & Sharma, 2021; Yan et al., 2021). Perceived usefulness remains a vital indicator for investigating the behavior of individuals in learning environments, and satisfaction provides a path for examining the route from initial acceptance to confirmation and continued intentions.

Implications

This study's theoretical implications and contributions are significant in advancing the understanding of MOOCs as a technology-enhanced learning tool in the workplace, especially for sales professionals. By identifying the key factors that influence the continued use of MOOCs, the study provides insights into the factors that drive professionals in these fields to participate in self-directed learning. The study highlights the importance of social recognition, TTF, and satisfaction in promoting the continued use of MOOCs among sales professionals. Consistent with earlier studies, the research provides an understanding of the applicability of the social cognition theory by validating the intentions of sales professionals to enroll in MOOCs (Kim et al., 2021; Mısır & Işık-Güler, 2022). The study provides theoretical underpinnings for the applicability of social cognition theory in the context of self-directed learning initiatives. This can provide useful information to MOOC designers and providers on how to structure and design their courses to meet the needs of these learners.

The practical implications of this study are significant for both sales professionals seeking self-development and upskilling through MOOCs and for MOOC designers and providers. For sales professionals, the study highlights the importance of self-directed learning, social recognition, and TTF in shaping their perception of the usefulness of MOOCs. The study findings suggest that MOOCs provide a valuable opportunity for self-development and upskilling and that individuals who engage in MOOCs with the goal of self-development are likely to perceive them as useful. Furthermore, social recognition and relationships play a significant role in motivating sales professionals to enroll in MOOCs, and TTF is a critical factor that influences the perceived usefulness of MOOCs. For MOOC designers and

providers, the study provides implications that have a bearing on the motivators that drive sales professionals to participate in MOOCs and the specific aspects of TTF that are most important to this target group. By understanding these factors, MOOC designers and providers can design more effective courses that meet the needs and expectations of sales professionals.

Limitations and Future Scope of Research

This research considers the continued intentions of sales professionals to undergo self-development using self-directed learning tools such as MOOCs. The research findings are limited to the continued intentions to use MOOCs by professionals engaged in sales and marketing activities. Future studies must be conducted in other contextual settings to generalize the results.

The applicability of the social cognition theory in the present context yielded the desired results, thus implying its usefulness. Further studies could consider other constructs for further investigating this field. The self-determination theory (SDT) was not considered for this research, as it posits innate choices made by individuals in the absence of external influences. The present study considered SCT owing to its application in the research, though further researchers could consider SDT given its theoretical underpinnings in the present context.

A longitudinal study may provide varied insights into the actual use of MOOCs by sales professionals. Future research could also consider the interplay between employer sponsored training and voluntary training initiatives to chalk out patterns arising from it.

The sample for this research was context-specific and centered on sales professionals from India. Applying the research in different geographies could provide useful insights, perhaps reinforcing the present research and its results.

Conclusion

This study highlights the importance of MOOCs as a technology-enhanced learning tool for sales professionals. The study sheds light on the key factors that influence the perceived usefulness of MOOCs, including self-development, social recognition, and TTF. The research also emphasizes the role of satisfaction in predicting the continued use of MOOCs among sales professionals.

The study's theoretical implications contribute to the existing literature on technology-enhanced learning and learner behavior, providing insights into the motivators that drive professionals to participate in self-directed learning. The study's practical implications are significant for both sales professionals seeking to enhance their self-development and upskilling through self-directed learning and MOOC designers and providers seeking to develop more effective courses that meet the needs of sales professionals. The study provides valuable information for organizations seeking to promote employee learning and development and highlights the potential benefits of MOOCs in achieving these goals.

References

Alyoussef, I. Y. (2021). Massive open online course (MOOCs) acceptance: The role of task-technology fit (TTF) for higher education sustainability. *Sustainability*, *13*(13), Article 7374. https://doi.org/10.3390/su13137374

Artis, A. B., & Harris, E. G. (2007). Self-Directed learning and sales force performance: An integrated framework. *Journal of Personal Selling & Sales Management*, *27*(1), 9–24. https://doi.org/10.2753/PSS0885-3134270101

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice Hall.

Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist*, *44*(9), 1175–1184. https://psycnet.apa.org/doi/10.1037/0003-066X.44.9.1175

Bhattacherjee, A. (2001). Understanding information systems continuance: An expectation-confirmation model. *MIS Quarterly*, *25*(3), 351–370. https://doi.org/10.2307/3250921

Bussey, K., & Bandura, A. (1999). Social cognitive theory of gender development and differentiation. *Psychological Review*, *106*(4), 676–713. https://psycnet.apa.org/doi/10.1037/0033-295X.106.4.676

Cagiltay, N. E., Cagiltay, K., & Celik, B. (2020). An analysis of course characteristics, learner characteristics, and certification rates in MITx MOOCs. *The International Review of Research in Open and Distributed Learning*, *21*(3), 121–139. https://doi.org/10.19173/irrodl.v21i3.4698

Castaño-Muñoz, J., Kalz, M., Kreijns, K., & Punie, Y. (2018). Who is taking MOOCs for teachers' professional development on the use of ICT? A cross-sectional study from Spain. *Technology, Pedagogy and Education*, *27*(5), 607–624.

Cho, V., Cheng, T. C. E., & Lai, W. M. J. (2009). The role of perceived user-interface design in continued usage intention of self-paced e-learning tools. *Computers & Education*, *53*(2), 216–227. https://doi.org/10.1016/j.compedu.2009.01.014

Conde, R., Prybutok, V., & Sumlin, C. (2021). The utilization of online sales forums by salespeople as a mesosystem for enhancing sales-activity knowledge. *Journal of Business & Industrial Marketing*, *36*(4), 630–640. https://doi.org/10.1108/JBIM-03-2020-0129

Cooper, C. L., & Lu, L. (2016). Presenteeism as a global phenomenon: Unraveling the psychosocial mechanisms from the perspective of social cognitive theory. *Cross Cultural & Strategic Management*, *23*(2). https://doi.org/10.1108/CCSM-09-2015-0106

Daneji, A. A., Ayub, A. F. M., & Khambari, M. N. M. (2019). The effects of perceived usefulness, confirmation and satisfaction on continuance intention in using massive open online course (MOOC). *Knowledge Management & E-Learning*, *11*(2), 201–214.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information

technology. *MIS Quarterly*, *13*(3), 319–340. https://doi.org/10.2307/249008

Filieri, R., Acikgoz, F., Ndou, V., & Dwivedi, Y. (2021). Is TripAdvisor still relevant? The influence of review credibility, review usefulness, and ease of use on consumers' continuance intention. *International Journal of Contemporary Hospitality Management*, *33*(1), 199–223. https://doi.org/10.1108/IJCHM-05-2020-0402

Fowler, F. J., Jr. (2002). *Survey research methods* (3rd ed.). Sage.

Goodhue, D. L., & Thompson, R. L. (1995). Task-Technology fit and individual performance. *MIS Quarterly*, *19*(2), 213–236. https://doi.org/10.2307/249689

Greenhow, C., & Lewin, C. (2016). Social media and education: Reconceptualizing the boundaries of formal and informal learning. *Learning, Media and Technology*, *41*(1), 6–30. https://doi.org/10.1080/17439884.2015.1064954

Griffiths, M. A., Goodyear, V. A., & Armour, K. M. (2022). Massive open online courses (MOOCs) for professional development: Meeting the needs and expectations of physical education teachers and youth sport coaches. *Physical Education and Sport Pedagogy*, *27*(3), 276–290. https://doi.org/10.1080/17408989.2021.1874901

Hair, J. F., Jr., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage Learning.

Helm, R., Möller, M., Mauroner, O., & Conrad, D. (2013). The effects of a lack of social recognition on online communication behavior. *Computers in Human Behavior*, *29*(3), 1065–1077.

Homburg, C., Workman, J. P., Jr., & Jensen, O. (2002). A configurational perspective on key account management. *Journal of Marketing*, *66*(2), 38–60. https://doi.org/10.1509/jmkg.66.2.38.18471

Hosen, M., Ogbeibu, S., Giridharan, B., Cham, T.-H., Lim, W. M., & Paul, J. (2021). Individual motivation and social media influence on student knowledge sharing and learning performance: Evidence from an emerging economy. *Computers & Education*, *172*, Article 104262. https://doi.org/10.1016/j.compedu.2021.104262

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1–55. https://doi.org/10.1080/10705519909540118

Huang, G., & Ren, Y. (2020). Linking technological functions of fitness mobile apps with continuance usage among Chinese users: Moderating role of exercise self-efficacy. *Computers in Human Behavior*, *103*, 151–160. https://doi.org/10.1016/j.chb.2019.09.013

Hunter, G. K., & Perreault, W. D., Jr. (2006). Sales technology orientation, information effectiveness, and sales performance. *Journal of Personal Selling & Sales Management*, *26*(2), 95–113. https://doi.org/10.2753/PSS0885-3134260201

Itani, O. S., Agnihotri, R., & Dingus, R. (2017). Social media use in B2B sales and its impact on

competitive intelligence collection and adaptive selling: Examining the role of learning orientation as an enabler. *Industrial Marketing Management*, *66*, 64–79. https://doi.org/10.1016/j.indmarman.2017.06.012

Khashan, M. A., Elsotouhy, M. M., Alasker, T. H., & Ghonim, M. A. (2023). Investigating retailing customers' adoption of augmented reality apps: Integrating the unified theory of acceptance and use of technology (UTAUT2) and task-technology fit (TTF). *Marketing Intelligence & Planning*, *41*(5), 613–629.

Kim, D., Jung, E., Yoon, M., Chang, Y., Park, S., Kim, D., & Demir, F. (2021). Exploring the structural relationships between course design factors, learner commitment, self-directed learning, and intentions for further learning in a self-paced MOOC. *Computers & Education*, *166*, Article 104171. https://doi.org/10.1016/j.compedu.2021.104171

Knowles, M. S. (1975). *Self-directed learning: A guide for learners and teachers.* Association Press.

Knowles, M. S., Holton, E. F., III, Swanson, R. A., & Robinson, P. A. (2020). *The adult learner: The definitive classic in adult education and human resource development* (9th ed.). Routledge. https://doi.org/10.4324/9780429299612

Koukis, N., & Jimoyiannis, A. (2019). MOOCS for teacher professional development: Exploring teachers' perceptions and achievements. *Interactive Technology and Smart Education*, *16*(1), 74–91. https://doi.org/10.1108/ITSE-10-2018-0081

Kuo, T. M., Tsai, C.-C., & Wang, J.-C. (2021). Linking web-based learning self-efficacy and learning engagement in MOOCs: The role of online academic hardiness. *The Internet and Higher Education*, *51*, Article 100819. https://doi.org/10.1016/j.iheduc.2021.100819

Lassk, F. G., Ingram, T. N., Kraus, F., & Di Mascio, R. (2012). The future of sales training: Challenges and related research questions. *Journal of Personal Selling & Sales Management*, *32*(1), 141–154. https://doi.org/10.2753/PSS0885-3134320112

Liu, Y., Zhang, M., Qi, D., & Zhang, Y. (2022). Understanding the role of learner engagement in determining MOOCs satisfaction: A self-determination theory perspective. *Interactive Learning Environments*, *31*(9), 6084–6098. https://doi.org/10.1080/10494820.2022.2028853

Martin, C. A., Rivera, D. E., Riley, W. T., Hekler, E. B., Buman, M. P., Adams, M. A., & King, A. C. (2014). A dynamical systems model of social cognitive theory. In D. Tilbury (Chair), *2014 American Control Conference* (pp. 2407–2412). IEEE. https://doi.org/10.1109/ACC.2014.6859463

Milligan, C., & Littlejohn, A. (2017). Why study on a MOOC? The motives of students and professionals. *The International Review of Research in Open and Distributed Learning*, *18*(2), 92–102. https://doi.org/10.19173/irrodl.v18i2.3033

Mısır, H., & Işık-Güler, H. (2022). "Be a better version of you!": A corpus-driven critical discourse analysis of MOOC platforms' marketing communication. *Linguistics and Education*, *69*, Article 101021. https://doi.org/10.1016/j.linged.2022.101021

Moghavvemi, S., Paramanathan, T., Rahin, N. M., & Sharabati, M. (2017). Student's perceptions towards using e-learning via Facebook. *Behaviour & Information Technology*, *36*(10), 1081–1100. https://doi.org/10.1080/0144929X.2017.1347201

Nov, O., Naaman, M., & Ye, C. (2010). Analysis of participation in an online photo-sharing community: A multidimensional perspective. *Journal of the American Society for Information Science and Technology*, *61*(3), 555–566. https://doi.org/10.1002/asi.21278

Olsson, U. (2016). Open courses and MOOCs as professional development – is the openness a hindrance? *Education + Training*, *58*(2), 229–243. https://doi.org/10.1108/ET-01-2015-0006

Park, S., Jeong, S., & Ju, B. (2018). Employee learning and development in virtual HRD: Focusing on MOOCs in the workplace. *Industrial and Commercial Training*, *50*(5), 261–271. https://doi.org/10.1108/ICT-03-2018-0030

Radford, A. W., Robles, J., Cataylo, S., Horn, L., Thornton, J., & Whitfield, K. E. (2014). The employer potential of MOOCs: A mixed-methods study of human resource professionals' thinking on MOOCs. *The International Review of Research in Open and Distributed Learning*, *15*(5), 1–25. https://doi.org/10.19173/irrodl.v15i5.1842

Rahi, S., Khan, M. M., & Alghizzawi, M. (2021). Factors influencing the adoption of telemedicine health services during COVID-19 pandemic crisis: An integrative research model. *Enterprise Information Systems*, *15*(6), 769–793.

Rollins, M., Nickell, D., & Wei, J. (2014). Understanding salespeople's learning experiences through blogging: A social learning approach. *Industrial Marketing Management*, *43*(6), 1063–1069. https://doi.org/10.1016/j.indmarman.2014.05.019

Sablina, S., Kapliy, N., Trusevich, A., & Kostikova, S. (2018). How MOOC-Takers estimate learning success: Retrospective reflection of perceived benefits. *The International Review of Research in Open and Distributed Learning*, *19*(5). https://doi.org/10.19173/irrodl.v19i5.3768

Shao, Z. (2018). Examining the impact mechanism of social psychological motivations on individuals' continuance intention of MOOCs. *Internet Research*, *28*(1), 232–250. https://doi.org/10.1108/IntR-11-2016-0335

Shapiro, H. B., Lee, C. H., Roth, N. E. W., Li, K., Çetinkaya-Rundel, M., & Canelas, D. A. (2017). Understanding the massive open online course (MOOC) student experience: An examination of attitudes, motivations, and barriers. *Computers & Education*, *110*, 35–50.

Shon, M., Lee, D., & Kim, J. H. (2021). Are global over-the-top platforms the destroyers of ecosystems or the catalysts of innovation? *Telematics and Informatics*, *60*, Article 101581. https://doi.org/10.1016/j.tele.2021.101581

Singh, A., & Sharma, A. (2021). Acceptance of MOOCs as an alternative for internship for management students during COVID-19 pandemic: An Indian perspective. *International Journal of Educational Management*, *35*(6), 1231–1244. https://doi.org/10.1108/IJEM-03-2021-0085

Spreng, R. A., Harrell, G. D., & Mackoy, R. D. (1995). Service recovery: Impact on satisfaction and intentions. *Journal of Services Marketing*, *9*(1), 15–23. https://doi.org/10.1108/08876049510079853

Taylor, S., & Todd, P. A. (1995). Understanding information technology usage: A test of competing models. *Information Systems Research*, *6*(2), 144–176.

Tseng, T. H., Lin, S., Wang, Y.-S., & Liu, H.-X. (2022). Investigating teachers' adoption of MOOCs: The perspective of UTAUT2. *Interactive Learning Environments*, *30*(4), 635–650. https://doi.org/10.1080/10494820.2019.1674888

Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science*, *46*(2), 186–204. https://doi.org/10.1287/mnsc.46.2.186.11926

Wan, L., Xie, S., & Shu, A. (2020). Toward an Understanding of University Students' Continued Intention to Use MOOCs: When UTAUT Model Meets TTF Model. SAGE Open, 10(3). https://doi.org/10.1177/2158244020941858

Wang, H., Tao, D., Yu, N., & Qu, X. (2020). Understanding consumer acceptance of healthcare wearable devices: An integrated model of UTAUT and TTF. *International Journal of Medical Informatics*, *139*, Article 104156. https://doi.org/10.1016/j.ijmedinf.2020.104156

Wang, S.-L., & Wu, P.-Y. (2008). The role of feedback and self-efficacy on web-based learning: The social cognitive perspective. *Computers & Education*, *51*(4), 1589–1598. https://doi.org/10.1016/j.compedu.2008.03.004

Wu, B., & Chen, X. (2017). Continuance intention to use MOOCs: Integrating the technology acceptance model (TAM) and task technology fit (TTF) model. *Computers in Human Behavior*, *67*, 221–232. https://doi.org/10.1016/j.chb.2016.10.028

Yan, M., Filieri, R., Raguseo, E., & Gorton, M. (2021). Mobile apps for healthy living: Factors influencing continuance intention for health apps. *Technological Forecasting and Social Change*, *166*, Article 120644. https://doi.org/10.1016/j.techfore.2021.120644

Zhang, Y., Tian, Y., Yao, L., Duan, C., Sun, X., & Niu, G. (2022). Individual differences matter in the effect of teaching presence on perceived learning: From the social cognitive perspective of self-regulated learning. *Computers & Education*, *179*, Article 104427. https://doi.org/10.1016/j.compedu.2021.104427

Zhou, M. (2016). Chinese university students' acceptance of MOOCs: A self-determination perspective. *Computers & Education*, *92*, 194–203. https://doi.org/10.1016/j.compedu.2015.10.012

Appendix

Sources of Construct and Items

Construct	Item	Statement	Source
Self-development	SD1	Participation in the MOOCs allows me to learn new things.	Nov et al., 2010
	SD2	Participation in the MOOCs enables me to become more proficient.	
	SD3	Participation in the MOOCs enhances my expertise.	
Social recognition	SR1	I feel valued and appreciated when others acknowledge my achievements.	Bandura, 1989; Helm et al., 2013
	SR2	Receiving praise or validation from others motivates me to work harder and achieve more.	
	SR4	Non-recognition of my accomplishments discourages me.	
Task-technology fit	TTF1	MOOCs are fit for the requirements of my learning.	Wan et al., 2020; Wu & Chen, 2017
	TTF2	Using MOOCs fits with my educational practice.	
	TTF3	It is easy to understand which tool to use in MOOCs.	
	TTF5	MOOCs are suitable for helping me complete online courses.	
Perceived usefulness	PU1	MOOCs can improve my level in my specialty.	Davis, 1989
	PU2	MOOCs can improve my productivity in learning.	

	PU3	MOOCs can help me with my present studying schedule.	
Satisfaction	SAT1	I am satisfied with learning in MOOCs	Bhattacherjee, 2001; Spreng et al., 1995
	SAT2	I am pleased to study MOOCs for career advancement.	
	SAT3	I am content with the MOOCs for career progression and development.	
	SAT4	Learning in MOOCs is a very delightful experience.	
Continued intentions to use MOOCs	CI1	Using MOOCs for learning is a great idea.	Bhattacherjee, 2001; Taylor & Todd, 1995
	CI2	I intend to continue participating in the MOOC platform.	
	CI3	I plan to continue using MOOCs to learn new knowledge.