

A SWOT Analysis of Small Private Online Courses

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ABSTRACT

While some research has been conducted to identify the strengths and weaknesses of Small Private Open Courses (SPOCs), a significant research gap exists in comprehensively examining the opportunities and threats they face. To determine if SPOCs are beneficial to learners, the authors adopted the PRISMA protocol to filter literature for SWOT analysis in SPOCs. The authors identified and analyzed the strengths, weaknesses, opportunities and threats faced by SPOCs using a SWOT analysis method. The strengths of SPOCs include high-quality content and course delivery, accessibility, and personalization. Weaknesses involve lack of social interaction, limited resources, credentialing issues. Their opportunities consist of market growth, collaboration with other institutions, and access to new student markets. Their threats include competition from traditional courses, technology updates, and student privacy concerns.

KEYWORDS

SPOCs, Strengths, Weaknesses, Opportunities, Threats

Small private online courses (SPOCs) are a type of online education that combines the flexibility and accessibility of open online courses with the personalization and interaction of traditional classroom education (Alario-Hoyos et al., 2017). SPOCs are typically designed for a small group of learners, often within a specific academic context or institution, and are open to learners beyond the institution's traditional student body. SPOCs provide learners with a structured and immersive online learning experience, including access to course materials, videos, readings, and online discussions (H. N. H. Cheng et al., 2017). They also often include interactions with course mentors or facilitators to provide personalized feedback and guidance (Chen et al., 2020). SPOCs offer an alternative to traditional classroom education for learners who need flexibility or accessibility or who may not have access to traditional education systems.

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SIGNIFICANCE OF SPOCS

The significance of SPOCs lies in their unique ability to merge the best of traditional classroom education with the flexibility and accessibility of online learning (Wan et al., 2023). SPOCs are a distinctive combination of traditional classroom education and online learning. These courses offer personalized learning experiences, allowing students to take ownership of their own educational journey. The platform allows learners to customize their experience according to their needs and interests. SPOCs also offer institutions a cost-effective way to expand their reach and impact (Zhang et al., 2020). By using online platforms, institutions can reach learners who may not have access to traditional education systems. This opens up new opportunities for learners in remote areas or with limited access to education resources (Prates et al., 2023). Moreover, SPOCs provide institutions with a chance to experiment with new teaching methods and technologies. They can use data analytics to understand learners' needs and improve their courses accordingly (Alario-Hoyos et al., 2017). This helps institutions stay relevant and competitive in today's rapidly changing education landscape.

RESEARCH GAPS IN SWOT ANALYSIS OF SPOCS

The SWOT analysis, a strategic tool commonly utilized to identify the strengths, weaknesses, opportunities, and threats associated with a given topic or project, has found application in various fields (Farrokhnia et al., 2023). One of the main research gaps is in the identification and measurement of the unique strengths and weaknesses of SPOCs. While it is clear that SPOCs offer flexibility, convenience, and personalized learning experiences, the specific characteristics that set them apart from traditional courses have not been fully explored. Understanding these unique strengths is crucial for effective strategic planning and development of SPOCs. Furthermore, research is needed to identify the opportunities and threats facing SPOCs in the current educational landscape (Filius et al., 2018). The rise of online education and the changing preferences of learners have opened up new opportunities for SPOCs, but they also face competition from traditional courses and other online education platforms. Understanding these opportunities and threats is crucial for developing effective strategies to capitalize on them. To bridge the research gaps and enhance our understanding of SPOCs, it is necessary to conduct comprehensive SWOT analyses of SPOCs (Farrokhnia et al., 2023).

ADDRESSING THE RESEARCH GAP IN SWOT ANALYSIS OF SPOCS

To address the research gap in SWOT analysis of SPOCs, several solutions were implemented. Comprehensive research was conducted on the strengths and weaknesses of SPOCs, including both quantitative and qualitative methods to capture a more nuanced understanding of the topic. We also identified and analyzed the opportunities and threats faced by SPOCs. This information can be used to inform decision making and strategy development. We also proposed suggestions for educators, learners, and other stakeholders for developing effective teaching methods and support services for SPOCs. This collaboration could lead to the creation of more engaging and effective courses that meet the needs of a diverse range of learners.

THEORETICAL FRAMEWORK

The theoretical framework of studying SPOCs through SWOT analysis involves analyzing the strengths, weaknesses, opportunities, and threats associated with these courses (Godde et al., 2023). The strengths of SPOCs include their flexibility, accessibility, and personalization of learning. Students can access high-quality content at their own pace, often with more engaging delivery methods. The weaknesses of SPOCs include the lack of social interaction and the challenges of maintaining engagement. The online nature of SPOCs can lead to feelings of isolation and disconnectedness

among students. Opportunities for SPOCs include their scalability and global reach. These courses can be easily expanded to accommodate larger numbers of students, providing access to high-quality education resources to a wider audience. Threats to SPOCs include piracy and unauthorized distribution of content. The online nature of these courses makes them vulnerable to illegal copying and sharing of content, which can undermine the value and integrity of the courses.

LITERATURE REVIEW

Strengths of SPOCs

SPOCs have been recognized for their unique strengths in education (Datsun, 2019). SPOCs have often been praised for their tailored learning approach (Dominguez-Martin et al., 2019). Instructors are able to tailor the course content and pace to the needs and abilities of each student. This individualized approach ensures that students receive the appropriate level of challenge and support, leading to more effective learning. SPOCs are known for their interactive and collaborative learning elements (Yu et al., 2023). Students are able to work together in small groups, engaging in meaningful communication and collaboration. This type of learning environment improved fluency, and enhanced cultural understanding in the past. SPOCs have provided access to high-quality resources (Ziebarth & Hoppe, 2014). These courses are often taught by experienced teachers who used a variety of resources, including textbooks, online platforms, and cultural materials, to enhance the learning experience. Students had access to a wide range of resources in the past, allowing them to develop a deeper understanding of the culture being taught.

Furthermore, SPOCs offer flexibility in scheduling. Students are able to access the course materials at their convenience, allowing them to fit learning into their busy schedules. This flexibility also allows students to take breaks or skip sections without penalty, providing a more relaxed and less stressful learning environment (H. N. H. Cheng et al., 2017). Despite being online, SPOCs often create a sense of community among students and teachers. These courses often include discussion forums, Q&A sessions, or even live Zoom meetings where students can ask questions or engage with each other. This sense of community fosters a more interactive learning environment and helps students feel more connected to the language and culture being taught in the past (Xue & Dunham, 2023). In general, SPOCs have a range of significant strengths that have made them a popular choice for many learners. Their tailored learning approach, interactive and collaborative learning environment, access to high-quality resources, flexible scheduling, and sense of community all contribute to creating an effective and engaging learning experience for students. Given previous studies, we proposed the following research question:

RQ1: What are the strengths of SPOCs?

Weaknesses of SPOCs

Previous studies on the weaknesses of SPOCs in learning highlighted several challenges. One significant weakness is the lack of social interaction (Kaplan & Haenlein, 2016). SPOCs may not provide the same level of social interaction as traditional face-to-face classes, which may limit the opportunity for practice and cultural exchange. Additionally, the lack of instructor feedback may be a challenge for students who need personalized guidance (Gupta, 2020). Finally, SPOCs may not offer the same level of structured learning as traditional courses, which may make it difficult for students to stay organized and on track. Consequently, we proposed the following research question:

RQ2: What are the weaknesses of SPOCs?

Opportunities for SPOCs

Previous studies on the opportunities for SPOCs have revealed that these courses offer individuals the flexibility to learn at their own pace and convenience (Datsun, 2019). They allow learners to access high-quality education resources from anywhere, making it an attractive option for many learners. Additionally, SPOCs provide an opportunity for personalization, with learners able to select courses according to their interests and needs (Chen et al., 2020). Moreover, they provide an opportunity for interaction and collaboration with other learners, which was not possible in traditional classroom settings. Therefore, SPOCs are seen as a viable alternative to traditional classroom-based education. Therefore, we proposed the following research question:

RQ3: What are the opportunities for SPOCs?

Threats to SPOCs

Previous studies on the threats to SPOCs have revealed that these courses face several challenges (Gupta, 2020). One of the main threats is the issue of student engagement. Since SPOCs are self-paced, it is difficult for some students to stay motivated and to concentrate throughout the course (Meinert et al., 2019). Additionally, there is a risk of information overload, as students are often bombarded with a large amount of content in a short period of time (Jiang & Liang, 2023). Furthermore, the lack of face-to-face interaction and community building is seen as a major downside, as it makes it difficult for students to build social capital and connect with other learners. Moreover, the cost of SPOCs is often high, which makes it an expensive option for many learners (L. Zhang et al., 2020). Therefore, it is essential to consider these threats when implementing SPOCs in education. We thus proposed the following research question:

RQ4: What are the threats to SPOCs?

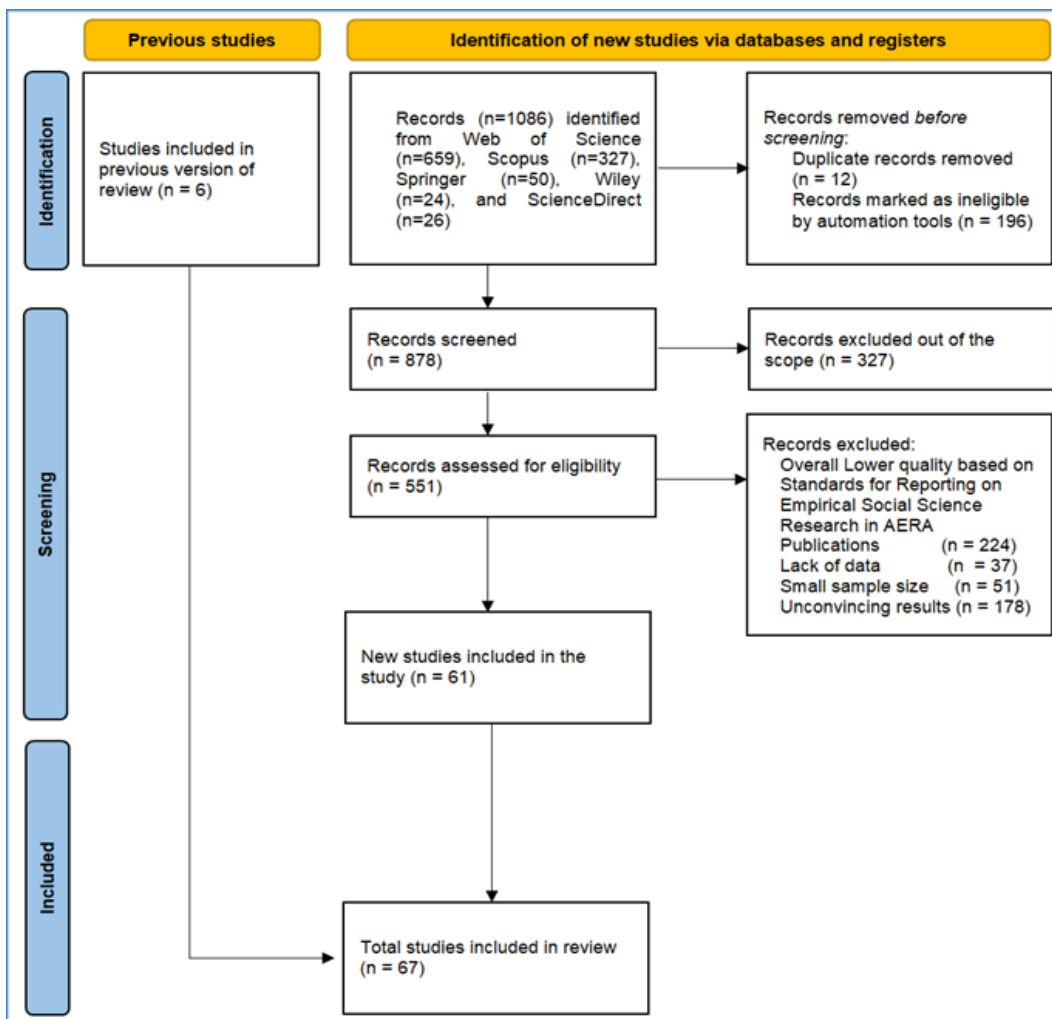
METHODS

The PRISMA Protocol

The PRISMA protocol is a widely used method for systematic review and meta-analysis of literature (Alves et al., 2023). It provides a structured approach to filtering and selecting relevant literature for SWOT analysis of SPOCs. We adopted the following steps to filter literature for SWOT analysis of SPOCs. We first defined the research questions in order to guide the literature search and filtering process, ensuring that the selected studies were relevant to the specific context of SPOCs. On the basis of the research question, we developed a search strategy that included appropriate keywords and other relevant search terms to capture a wide range of relevant studies. We then conducted a literature search in relevant databases, such as Web of Science, Scopus, and Springer, to retrieve the identified studies for further screening. After that, we screened the identified studies according to titles, abstracts, and keywords and included only those studies directly relevant to the research questions and SPOCs.

We assessed the quality of the selected studies according to the criteria for Reporting on Empirical Social Science Research in American Educational Research Association (AREA) (Anwar et al., 2023). AREA provides a series of suggestions regarding the quality of publications, including title, abstract, introduction, problem statement, literature review, research design, results, discussion, conclusion, ethics, and organization, reliability, and validity of data. Those with lower quality were excluded from the SWOT analysis. We then extracted relevant data from the selected studies that are relevant

Figure 1. A Flow Chart of Literature Filtering Based on the PRISMA Protocol



to the SWOT analysis, including information on SPOC characteristics, student outcomes, teaching methods, and other relevant factors. Finally, we performed a SWOT analysis on the extracted data.

We obtained a total of 659 results from Web of Science Core Collection for SPOC (Topic), including the following types: review article (n=8), early access (n=9), open access (n=244), enriched cited references (n=88), and open publisher-invited reviews (n=2), ranging from 1977 to 2023. We obtained 327 results by entering SPOC into the online database SCOPUS as “title” for searching. We obtained 50 results by entering SPOC as “title” for searching in SpringerLink. We obtained 24 results for SPOC as “title” for searching the online database Wiley. We obtained 26 results from ScienceDirect by entering SPOC as “title.” We removed duplicate records and those marked as ineligible by automation tools such as Zotero and Endnote. We also excluded documents outside the scope of SPOCs and those judged to be of lower quality according to AERA framework. The documents were also filtered if they failed to provide enough data, employed small sample sizes, or yielded unconvincing results. By adding previous review studies and newly emerging studies, we finally included 67 documents guiding this study (Figure 1).

The SWOT Analysis

Identifying the Internal Strengths and Weaknesses of SPOCs

This step involved examining factors such as the quality of teaching materials, the effectiveness of student assessment methods, the flexibility of course structure and content, the learner-centered approach of SPOCs, and their ability to engage students and encourage active participation. Strengths of SPOCs included their ability to provide personalized learning experiences, their adaptability to different learning styles, and their focus on providing feedback and support to students. Weaknesses might include a lack of face-to-face interaction, difficulties in assessing students' skills and progress accurately, and a potential lack of student motivation or engagement.

Identifying the External Opportunities and Threats Facing SPOCs

This step involved analyzing broader trends and forces that could affect the success of SPOCs. Opportunities might include the growing demand for online education, the development of new technologies that enhance teaching and learning experiences, and the potential for collaboration with other educational institutions or industry partners. Threats might include competition from traditional educational institutions offering online courses, concerns about the quality and legitimacy of online education, and potential changes in government policies or regulations that could affect the operation of SPOCs.

Developing Strategies Based on the SWOT Analysis

On the basis on the SWOT matrix, strategies could be developed to capitalize on strengths and opportunities while addressing weaknesses and threats. For example, strategies might include improving student engagement and motivation by incorporating more interactive and experiential learning activities; collaborating with other educational institutions to share best practices and resources; or adapting new technologies to enhance teaching and learning experiences.

RESULTS

Strengths

Content and Course Delivery

The quality of the content and delivery methods used in SPOCs is a distinct strength that separates them from other online learning platforms. This high quality is a direct result of the SPOC designers' commitment to ensuring accuracy, currency, and relevance to the target audience (Adhikari & Poudel, 2023; L. Chen, 2023). SPOCs are typically designed with a focus on quality content creation, ensuring that the information presented is accurate, up to date, and relevant to the target audience. The courses are engaging and interactive, utilizing a variety of delivery methods that encourage student participation and interaction. These methods can include videos, animations, quizzes, assignments, and online forums, among others. These elements allow students to actively engage with the material, promoting a deeper understanding and retention of information (Belarbi et al., 2019).

The flexibility of SPOCs is another key aspect that sets them apart. Students can learn at their own pace and in their own timeframe, making SPOCs an ideal choice for those with busy schedules or those who need to fit their learning into their daily routine (Sbardella et al., 2022). SPOCs provide an opportunity for students to learn when and where they want, without the constraints of a traditional classroom setting. The engaging nature of the content and delivery methods not only benefits the students but also contributes to the overall success of the courses (Chen & Du, 2022). The engaging content and delivery methods attract students who are more likely to complete the course and achieve their learning goals. Additionally, the high-quality content ensures that the information presented is

reliable and trustworthy, further enhancing the credibility of SPOCs in the online education market (H. N. H. Cheng et al., 2017).

Accessibility

SPOCs represent an innovative and effective way to deliver high-quality education to a broader audience. These courses offer a cost-effective and convenient alternative to traditional brick-and-mortar institutions, making quality education accessible to more students (Meinert et al., 2019; S. Chen & Du, 2022). The primary advantage of SPOCs lies in their cost-effectiveness. Unlike traditional classrooms, SPOCs provide students with access to affordable and quality educational resources. This cost-efficiency extends beyond the actual course fees, encompassing the elimination of additional expenses such as transportation, childcare, and the need to relocate for education (Chen & Du, 2022). SPOCs make it possible for students from diverse backgrounds and financial situations to have equal access to quality education. Convenience is another key factor that sets SPOCs apart. These courses are accessible from anywhere with an internet connection, removing geographical barriers and providing flexibility for students to learn at their own pace and schedule (Coti et al., 2015; Sbardella et al., 2022). This flexibility is especially beneficial for individuals with busy schedules or limited access to traditional educational institutions. SPOCs enable them to fit learning into their daily routine, balancing work, family, and other responsibilities.

SPOCs offer students an engaging and diverse learning experience, often outperforming traditional face-to-face courses (Nejkovic & Tosic, 2018). These courses are designed with various interactive elements that promote active student participation and enhance understanding. For instance, SPOCs commonly utilize videos, animations, quizzes, assignments, and online forums (Yu et al., 2023). Videos allow students to consume content at their own pace, ensuring comprehension. Quizzes and assignments reinforce learning and provide feedback on progress, while online forums foster collaboration and idea sharing among learners (Z. Liu et al., 2021; Guillot et al., 2015). This blend of engagement methods not only keeps students interested but also enhances their retention of information. Therefore, SPOCs provide a comprehensive and engaging learning experience that encourages active participation, collaboration, and feedback. These features make SPOCs an effective alternative to traditional courses, delivering a more immersive and impactful learning journey.

Personalization

SPOCs are innovative educational platforms that offer personalized learning experiences, enabling students to tailor their learning to their unique needs and interests. This flexibility is invaluable, especially for students who have specific learning goals or struggle to fit traditional classroom learning into their busy schedules (Cao, 2017). SPOCs empower students to control their own learning pace, allowing them to select modules and content aligning with their individual needs and interests (Jiang & Jin, 2020). This personalized approach to learning not only fosters engagement and motivation but also encourages students to take ownership of their educational journey. This, in turn, can lead to deeper comprehension, a sense of fulfillment, and better retention of knowledge and skills.

For students who have clear learning objectives, SPOCs provide an ideal platform to focus on the areas that are most relevant to their goals. Whether they are interested in exploring a particular subject matter or preparing for a specific career path, SPOCs allow them to select modules that align with their interests and aspirations, thus ensuring that their learning is tailored and meaningful (Huang et al., 2017). Moreover, for students who juggle multiple responsibilities and find it challenging to adhere to a strict learning schedule, SPOCs offer a convenient and accessible solution. They can access course materials, lectures, and assignments at the times that are most convenient for them, without having to adhere to a rigid timetable or commute to a physical classroom. This flexibility not only saves time but also allows students to fit learning into their daily routines seamlessly, making it easier for them to balance their academic pursuits with other responsibilities (Mejon et al., 2018).

Weaknesses

Lack of Social Interaction

The key limitation of SPOCs lies in the absence of social interaction, which is a fundamental aspect of traditional classrooms (Zhang & Pan, 2017). In a traditional setting, students engage with peers, fostering relationships and collaborative opportunities that are vital for personal and academic growth. SPOCs, on the other hand, often occur solely online, limiting these valuable social interactions (Huang & Jiao, 2017). This constraint can hinder the development of professional networks and limit collaboration, two skills that are crucial for students' future success. Furthermore, the traditional classroom environment promotes learning through group work, discussions, and presentations, enabling students to gain unique insights from peers and deepen their understanding through collective efforts. SPOCs, despite their convenience, fail to replicate this rich learning environment.

In the context of online learning, students may miss out on valuable networking opportunities that are enjoyed in traditional settings. This is because they may not be exposed to diverse perspectives and may lack the chance to cultivate professional relationships with peers (Chung & Chen, 2020). Such limitations can hinder their future collaboration abilities and overall development as learners. To mitigate this issue, some SPOCs offer virtual office hours or online chats as platforms for student interaction (Jiang, 2022). These options aim to replicate some social aspects of a traditional classroom, yet they may fall short of the effectiveness of face-to-face communication. Overall, while SPOCs offer convenience and flexibility, the absence of social interaction remains a significant drawback. Students should consider this aspect when selecting an online learning platform and actively seek social interaction and collaboration beyond the virtual classroom environment (Chen et al., 2020).

Limited Resources

SPOCs often have limited resources compared to traditional institutions, which can impact the quality of the courses they offer (Ziebarth & Hoppe, 2014). A key constraint is limited access to educational technology, faculty expertise, and curricular materials. SPOCs may not enjoy the same level of access to state-of-the-art educational technology as larger institutions, which often benefit from advanced learning management systems, virtual reality tools, and other cutting-edge technologies that enhance the learning experience (Freitas & Paredes, 2018). SPOCs might be reliant on outdated or less advanced technology, thus hampering their capacity to offer a superior learning experience. Furthermore, SPOCs' networking opportunities are limited, which may prevent students from interacting with diverse perspectives and developing professional relationships (Chung & Chen, 2020). This deficiency can hinder their collaboration abilities and overall development as learners. Therefore, it's crucial for students to consider the resource limitations and social interaction aspects when selecting an online learning platform, seeking opportunities for social interaction and collaboration beyond the virtual classroom environment (Chen et al., 2020).

SPOCs often face resource constraints that limit the quality of their courses (Ziebarth & Hoppe, 2014). Besides limited access to educational technology and outdated curricular materials (Freitas & Paredes, 2018), SPOCs may not enjoy the same level of faculty expertise as larger institutions (Prates et al., 2023). Larger institutions often boast a diverse pool of highly trained and experienced faculty who can provide high-quality instruction and guidance. In contrast, SPOCs may have fewer faculty members with limited expertise in specific fields, thus affecting the courses' quality and student support. Additionally, SPOCs may not have access to the same curricular materials as larger institutions, relying instead on limited or outdated resources (Serpa et al., 2021). This can further hinder the quality of their courses and impact student engagement and comprehension. Students should consider these limitations when selecting an online learning platform, seeking opportunities for a richer educational experience.

SPOCs often face resource constraints, limiting their course quality. To overcome these limitations, SPOCs can form partnerships with larger institutions or educational technology companies, leveraging

their resources to enhance course quality. Additionally, SPOCs can collaborate with other SPOCs or smaller institutions to pool resources, creating shared curricular materials or educational technology solutions. Students should be aware of these limitations when selecting an online learning platform and actively seek high-quality education and support beyond the virtual classroom (Rahayu et al., 2020). By taking a proactive approach, students can maximize their learning potential and gain a comprehensive educational experience.

Credentialing Issues

One of the significant drawbacks of SPOCs lies in their lack of standardization and credentialing compared to traditional degree programs (Jaramillo-Morillo et al., 2020). Although SPOCs often offer certificates or badges to signify course completion, these may not be recognized as equivalent to traditional degrees by employers or other educational institutions (Rana & Sportiello, 2014). Traditional degree programs, on the other hand, ensure a certain level of competency and knowledge through standardized criteria such as exams, assignments, and course requirements. These criteria foster critical thinking, complex issue analysis, and real-world application of knowledge, which are often lacking in SPOCs (Jaramillo-Morillo et al., 2020).

In contrast to traditional degree programs, SPOCs often lack stringent criteria for evaluating student success. Instead, they typically utilize alternative forms of assessment, such as online discussion participation, assignment completion, or a final exam (Antonucci et al., 2015). While these methods may effectively measure a student's knowledge and skills in a specific subject area, they do not offer the same level of assurance regarding a student's overall competency or their ability to apply learned knowledge in real-world scenarios. Furthermore, the absence of standardization and credentialing in SPOCs creates difficulties for students comparing courses or programs across platforms or institutions. The quality and effectiveness of SPOCs can vary widely, thus posing challenges for students in making informed decisions regarding the most suitable courses or programs for their needs and goals (Hamoen et al., 2022).

To address the weaknesses in student success evaluation in SPOCs, these platforms can collaborate with traditional institutions or other organizations to establish more standardized criteria for student learning success and credentialing. Additionally, SPOCs can work closely with employers or other organizations to better understand their credential and competency requirements, enabling them to design courses and programs that better prepare students for success in the workplace or other settings (Rahayu et al., 2020). It is imperative to establish a widely recognized evaluation standard to assess the quality of SPOCs and their assignments, ensuring that students receive a consistent and reliable measure of their learning outcomes. Such collaborations and standardization efforts can enhance the credibility and value of SPOCs, making them more attractive and effective for students seeking to enhance their knowledge and skills.

Opportunities

Market Growth

The online education market is experiencing rapid growth, presenting SPOCs with a significant opportunity to expand their reach and attract a larger student base. SPOCs can capitalize on this market trend by offering innovative courses that cater to a diverse student population, aligning with the increasing demand for convenient and flexible learning options (Freitas & Paredes, 2018). Collaborating with traditional institutions or other organizations to establish standardized criteria for student learning success and credentialing will further enhance SPOCs' credibility and value, ensuring a consistent and reliable measure of student learning outcomes (Rahayu et al., 2020).

One of the key factors driving online education market growth is the increasing demand for personalized learning experiences, which SPOCs can fulfill by offering courses tailored to individual interests, needs, and learning styles (Zhong, 2022). This approach aligns with the diversity of students' backgrounds and goals, ensuring engaging and effective learning outcomes (Kuo & Young, 2016).

SPOCs can further capitalize on current trends and industry needs by offering innovative courses responsive to job market demands, positioning them as leaders in the online education space (Daehne et al., 2014). By understanding and meeting the evolving needs of students, SPOCs can expand their reach, attract a larger student base, and solidify their position in the rapidly growing online education market.

SPOCs can collaborate with industry partners to create courses that are directly applicable to real-world scenarios, thus integrating practical components and hands-on experience into their curriculum (Delgado Kloos et al., 2014). This approach enhances course quality and prepares students for success in their chosen fields. To capitalize on the growing online education market, SPOCs must prioritize student success and satisfaction by providing resources and support (Jia & Zhang, 2021). By doing so, they can establish a positive feedback loop that attracts more students and builds a loyal community of learners. By staying responsive to industry needs and continuously improving their courses, SPOCs can reinforce their status as leaders in online education.

Collaboration with Other Institutions

SPOCs can collaborate with other institutions to offer joint degree programs, certificates, or other joint initiatives, thereby increasing their legitimacy and appeal (Y. Zhang, 2022). This collaboration can be achieved through partnerships with local universities or community colleges, enabling SPOCs to jointly offer bachelor's or master's degree programs (Vanderhaegen, 2016). Such partnerships enhance SPOCs' credibility and reputation by leveraging the established institutions' authority. Additionally, SPOCs can collaborate to offer certificates or professional development courses in high-demand areas, such as data science or healthcare administration (Cheng, 2018). These opportunities expand students' credentialing and recognition, thus bolstering their resume and marketability. Through these collaborations, SPOCs not only provide more options for students but also strengthen their own position in the education landscape.

Collaborating with other institutions can also lead to the development of joint initiatives that combine the resources and expertise of multiple organizations (Sun et al., 2018). For example, SPOCs can collaborate with local businesses or nonprofit organizations to create custom courses or training programs that address specific industry needs. These joint initiatives can provide students with more opportunities for hands-on learning and skill development, while also enabling SPOCs to better connect their courses with the real-world demands of the job market (Jaramillo-Morillo et al., 2020). By collaborating with other institutions, SPOCs not only increase their legitimacy and appeal but also open up new opportunities for growth and innovation. Joint degree programs and certificates and other joint initiatives can help SPOCs expand their reach and attract a larger student base. At the same time, these collaborations can provide students with more opportunities for credentialing and recognition, which can help them achieve their educational and career goals (Duffy & Greenman, 2019).

Access to New Student Markets

SPOCs can engage students from diverse backgrounds and locations by offering courses tailored to their unique needs and interests. By targeting niche student populations, SPOCs can create a specialized market position and foster a loyal student community (Ibrahim et al., 2021). To achieve this, SPOCs can curate courses that resonate with different student groups, addressing their specific industrial or topical interests. For instance, they might offer courses dedicated to the technology or healthcare sectors, or those focused on sustainability or the arts. By delivering courses that align with students' passions and professional aspirations, SPOCs can attract a diverse student population, fostering a vibrant and inclusive learning environment (Acharjee et al., 2022).

Targeting specific student populations or niches is another way for SPOCs to attract students (Busse et al., 2012). They can identify specific groups of students who have shared interests or needs and create courses that are tailored to those groups. For example, they can create courses for students who are interested in sustainability or for students who are looking to enhance their skills in

a specific industry. By targeting specific student populations or niches, SPOCs can carve out a unique market niche and build a loyal student base (Croft, 2017). To attract students from different locations, SPOCs can leverage the online platform to offer courses that are accessible to students regardless of their geographical location (Lemos de Carvalho et al., 2019). By using online technologies, SPOCs can offer interactive courses that include real-time discussions, online exams, and remote access to course materials. This flexibility allows students from anywhere in the world to participate in SPOC courses, expanding the reach of the institution and attracting a more diverse student population (Liu et al., 2014).

Threats

Competition from Traditional Courses

Traditional institutions enjoy a rich history and extensive infrastructure, providing them with access to comprehensive curricula and resources; SPOCs, on the other hand, face a challenge in maintaining their long-term viability. Students often prefer recognized and established institutions over newly rising online platforms. To remain competitive, SPOCs must keep pace with traditional institutions' offerings. Monitoring their curricula and resources, SPOCs should identify strengths and weaknesses to inform their development (Lopez-Jurado et al., 2019). By understanding the unique value proposition of traditional institutions, SPOCs can position themselves in the market to offer courses that are not only unique but also highly appealing to students. This strategy will ensure that SPOCs not only compete effectively but also contribute to the evolving landscape of higher education.

In addition to staying informed, SPOCs need to innovate in order to stay competitive (Ainoutdinova & Ainoutdinova, 2018). They can explore new teaching methods, utilize technology to enhance the learning experience, and create courses that are responsive to student needs. By innovating, SPOCs can differentiate themselves from traditional institutions and attract students who are looking for a different educational experience. SPOCs also need to build a strong brand identity that sets them apart from traditional institutions (Brandl, 2021). They can create unique websites, develop a strong social media presence, and market their courses effectively to attract students. By establishing a strong brand identity, SPOCs can build a loyal student base and ensure their long-term viability in the education market.

Technology Updates

Updates in educational technology can pose a significant threat to SPOCs if they are not able to keep up with the latest trends and features (Dorado et al., 2016). As technology continues to evolve, students expect SPOCs to provide a modern and engaging learning experience. If SPOCs fail to keep up with these advancements, they may lose student interest and engagement, leading to a decline in enrollments and revenues. To stay current with educational technology advancements, SPOCs need to continuously monitor the latest trends and features in the industry. They should stay informed of new technologies that are emerging and understand how they can integrate them into their courses to enhance the student experience. By staying informed, SPOCs can identify opportunities to innovate and improve their courses, ensuring they remain relevant and engaging for students (Min-Seok, 2018).

In addition to monitoring trends, SPOCs need to have a proactive approach to integrating new technologies into their courses. They should identify which technologies align with their teaching goals and how they can integrate them effectively into their courses. This may involve evaluating different platforms, tools, and resources to determine which ones are most suitable for their needs (Qi et al., 2017). SPOCs also need to consider the impact of updates on their existing infrastructure and resources (Chafiq et al., 2018). Updating courses and integrating new technologies may require additional resources, such as training for instructors or upgrading technology infrastructure. SPOCs need to have a plan in place to address these requirements and ensure that they can make the necessary investments to stay current with educational technology advancements (Zhao, 2018).

Student Privacy Concerns

In the online education space, student privacy is a crucial concern, and SPOCs must ensure the security and confidentiality of student data to maintain trust and reputation. Student privacy is a highly sensitive issue, and protecting student information and privacy rights is of utmost importance (Lu et al., 2013). SPOCs must comply with data privacy laws and best practices to ensure the security of student data. They need to have a comprehensive understanding of the privacy laws and regulations applicable to their region or country. To comply with data privacy laws, SPOCs should have a robust data security and privacy policy in place (Uthmani et al., 2010). The policy should outline the measures taken to protect student data, such as encryption, secure transmission, and access controls. SPOCs should also conduct thorough background checks on employees and contractors who have access to student data to ensure they are reliable and trustworthy (Jaramillo-Morillo et al., 2020).

SPOCs play a crucial role in education, but the strength of security measures is an issue to be addressed. Implementing two-factor authentication and single-sign-on systems is a step toward enhancing the security of student data (Schneider & Treiber, 2020). Regular updates to security protocols are also vital to staying ahead of evolving threats. SPOCs must prioritize confidentiality by implementing strict data access controls, ensuring that only authorized personnel can access student data (Lu et al., 2013). This access should be limited to those with a legitimate need to know, and SPOCs must adhere to best practices in handling sensitive student information. Avoiding storing sensitive data in clear text format and avoiding sharing it without proper authorization are key practices that should be followed to safeguard student privacy. By prioritizing these security measures, SPOCs can create a safe and secure learning environment for students.

SPOCs should also provide students with clear and understandable privacy policies that outline their data collection, use, and disclosure practices (Jia & Zhang, 2021). Students should be able to easily understand how their data is being used and have an opportunity to opt out of any data sharing practices if desired. By complying with data privacy laws and best practices, SPOCs can demonstrate their commitment to student privacy and maintain trust and reputation in the online education space (Croft, 2017). By prioritizing student privacy, SPOCs can establish themselves as reliable and trustworthy educational institutions, ensuring that both current and potential students feel confident in their learning experiences (Pfennig & Franz, 2016). To facilitate reading, we mapped the SWOT analysis results in Figure 2.

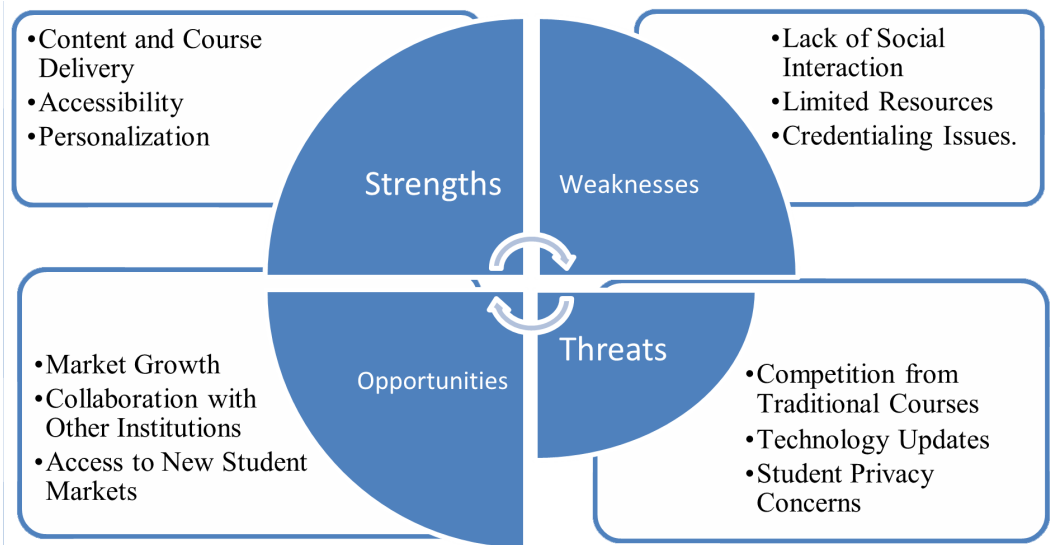
DISCUSSION

Personalized Learning, Marketing, and Educational Resources

SPOCs have become a popular learning option for students seeking personalized and flexible education experiences (Sun et al., 2024). They offer a unique blend of high-quality content delivery, accessibility, and engagement that traditional courses often lack, providing students with an innovative and transformative learning environment. Despite their popularity, SPOCs face several challenges, including limited social interaction, inadequate support systems, and credentialing issues. Furthermore, they must compete with traditional courses and adapt to the rapidly changing technological landscape. To maintain their popularity and effectiveness, SPOCs need to continuously innovate and improve their offerings to meet the evolving needs of students.

To thrive in this competitive market, SPOC providers must leverage the opportunities presented by technology advancements and market growth. They can achieve this by investing in innovative course design, personalized learning analytics, and collaborative learning environments (Zhang & Zhu, 2024). By doing so, SPOCs can capitalize on the demand for flexible and engaging learning experiences. Moreover, SPOC providers must also address the threats posed by competition and changing demographics. They can do this by implementing evaluation and feedback mechanisms that

Figure 2. SWOT Analysis Results of SPOCs



constantly improve their offerings (Zhou et al., 2024). By prioritizing learner retention and engagement, SPOCs can ensure their continued relevance and success in the evolving education landscape.

In conclusion, SPOCs offer significant strengths and benefits to learners, providing them with access to high-quality educational resources and personalized learning experiences. However, to maintain their market position, SPOCs must address key weaknesses and threats, such as the need for more interactivity and social learning opportunities. Future research should focus on innovative approaches to course design, personalized learning analytics, collaborative learning environments, and effective evaluation and feedback mechanisms (Li et al., 2024). By doing so, SPOCs can ensure that they continue to provide valuable and impactful learning experiences for students worldwide, enabling them to achieve their full academic potential.

Strategies for Improving SPOCs

For SPOCs, strategies for increasing social engagement, expanding resources, and addressing credentialing are crucial for enhancing the learning experience and attracting a wider range of learners. To increase social engagement, SPOCs can adopt several approaches (Zhu et al., 2023). First, creating an online community where learners can interact and share ideas is essential. This can be achieved through forums, discussion boards, or even social media platforms integrated into the SPOC platform. Encouraging learners to participate in online discussions and collaborate on projects can foster a sense of community and mutual support.

Second, SPOCs can leverage technology to enhance social engagement, using various tools to create an interactive and collaborative learning environment (Wan et al., 2017). Video conferencing tools, for instance, can be used to conduct live sessions or workshops, enabling learners to engage directly with instructors and peers, fostering a sense of community and mutual support (Ziebarth & Hoppe, 2014). Asynchronous learning tools, such as wikis and collaborative document editors, can also be employed to promote group work and knowledge sharing, enabling learners to collaborate and contribute to shared resources at their own pace. By leveraging these tools, SPOCs can create a dynamic learning experience that fosters social engagement and collaboration among learners.

To further expand their resources, SPOCs can actively collaborate with other educational institutions, industry experts, or organizations (Karkina et al., 2021). By pooling resources and

sharing expertise, SPOCs can offer a much richer, more diverse, and up-to-date content library. This collaboration can encompass a wide range of materials, from lecture videos and readings to case studies and simulations. Additionally, SPOCs can provide access to physical resources like libraries, laboratories, or even field trips, greatly enhancing the learning experience for participants. By leveraging these expanded resources, SPOCs can offer a comprehensive and engaging learning platform that meets the needs of a diverse student population.

Moreover, SPOCs can foster a culture of mutual learning by actively encouraging learners to contribute their own resources and expertise (Liu et al., 2021). By creating a platform that facilitates the sharing of content among learners, SPOCs can tap into the collective wisdom of their community, fostering a true crowd learning environment. This will not only enrich the course content but also enhance learner engagement and ownership, making the learning experience more dynamic and interactive.

Addressing credentialing is another crucial aspect of SPOC development (Jaramillo-Morillo et al., 2020). Learners often seek recognition and validation for their achievements, and SPOCs can play a pivotal role in providing certificates or badges to acknowledge their efforts. These credentials, designed to meet industry standards or align with specific job requirements, not only enhance learners' employability and career prospects but also act as a testament to their dedication and hard work. By providing these credentials, SPOCs can contribute to the overall professional development of their learners, fostering a culture of continuous learning and growth.

Moreover, SPOCs can forge partnerships with professional organizations and industry bodies, thereby offering credentialing programs that are widely recognized by employers and professional accreditation bodies (Wendt et al., 2016). This partnership can take various forms, such as offering courses that lead to professional certifications or licenses. Alternatively, SPOCs can collaborate with employers to create tailored SPOC programs that prepare learners for specific job roles or industries, ensuring that their skills and knowledge align with the current job market demands (Windmill, 2013). Such credentialing programs not only enhance learners' employability but also foster a more skilled and competitive workforce. Furthermore, future research could delve deeper into harnessing technology for interactive learning experiences within SPOCs. This could include exploring virtual reality, augmented reality, or artificial intelligence tools to create engaging and immersive learning environments.

It is evident that strategies to increase social engagement, expand resources, and address credentialing in SPOCs involve fostering an interactive and collaborative learning environment, leveraging technology to enhance engagement, collaborating with others to expand resources, encouraging learner contributions, and offering recognized credentials to acknowledge achievements. By implementing these strategies, SPOCs can provide learners with a rich, engaging, and validated learning experience.

Integrating the SWOT Analysis Into Online Education

Integrating these SWOT analysis findings with the broader implications for online education will provide a comprehensive understanding of the opportunities and challenges within this domain (Zhou et al., 2024). SPOCs, with their blend of small, focused courses and open access, offer personalized learning experiences and global access to education. However, they also face weaknesses such as limited interactivity and recognition issues. To address these, leveraging technology to enhance learner engagement is crucial. Strategies like interactive platforms and community-building features can greatly improve learner experience and engagement. Case studies from successful SPOCs that have overcome these challenges can serve as valuable references. Additionally, a proactive approach to identifying and adapting to changing learner preferences and market trends is essential. In sum, integrating SWOT findings with broader implications can guide online education providers in developing effective strategies to address weaknesses, leverage opportunities, and mitigate threats.

Threats to online education, such as competition from other educational formats and evolving learner preferences, can be mitigated by staying agile and responsive to market changes. Case studies from successful SPOCs that have overcome these challenges can provide valuable insights. For instance, a SPOC focusing on professional skills development could collaborate with industry leaders to offer credential recognition and job placement assistance (Wollscheid et al., 2020). This approach not only addresses the weakness of limited recognition but also aligns with learner preferences for practical and job-oriented learning experiences. Such strategic partnerships can significantly enhance the attractiveness of SPOCs to learners and employers, thus strengthening their position in the evolving online education landscape.

This SWOT analysis underscores the importance of continuous innovation and adaptation for online education providers as they navigate evolving landscapes. Leveraging cutting-edge technology, fostering strategic partnerships, and prioritizing learner needs are key to SPOCs' ability to transform online learning into a more engaging, recognized, and impactful experience (Croft, 2017). This approach not only enhances learner satisfaction and outcomes but also elevates the overall quality and reputation of online education, further validating its value in today's rapidly changing world.

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