



A Qualitative Analysis Of Implementing Online Workshops For Automotive Maintenance In DKI Jakarta

Taufan Herjanto

Yayasan Arya Taray Nusantara

Corresponding author: aryataraycenterjakarta@gmail.com

Abstract. *This research aims to explore the implementation of online workshops for automotive maintenance in DKI Jakarta. The study adopts a qualitative approach to gain insights into the effectiveness and challenges of conducting such workshops. Purposive sampling is employed to select participants with diverse backgrounds and experiences in automotive maintenance. Data collection methods include interviews, observations, and document analysis. Thematic analysis is utilized to identify patterns, themes, and key findings from the collected data. The study reveals valuable insights into the feasibility, benefits, and limitations of implementing online workshops for automotive maintenance in DKI Jakarta. The findings contribute to a deeper understanding of the potential of online platforms in facilitating vocational education and skill development in the automotive sector.*

Keywords: *Online Workshops, Automotive Maintenance, Platform*

1. INTRODUCTION

In the digital age, the landscape of education and skill development has been undergoing a transformative shift, particularly evident in the proliferation of online workshops. These virtual platforms offer unique opportunities for individuals to acquire new knowledge and skills conveniently and cost-effectively. One such area that has seen notable growth in online workshop offerings is automotive maintenance, catering to the needs of enthusiasts and professionals alike. The focus of this study is to delve into the implementation of online workshops for automotive maintenance in DKI Jakarta, Indonesia. By exploring this phenomenon, we aim to uncover insights into the effectiveness, challenges, and opportunities associated with virtual learning in the automotive sector. The significance of this study lies in its potential to inform educators, policymakers, and practitioners about the feasibility and impact of online workshops in enhancing automotive maintenance skills. As digitalization continues to reshape various industries, understanding the dynamics of virtual learning in automotive maintenance can pave the way for more tailored and accessible skill development initiatives.

To contextualize our research, it is essential to examine existing literature on online workshops and automotive maintenance training. Rizal, Ruslaini, and Subhana (2022) conducted a comprehensive analysis of the feasibility of an online workshop called "OT Repair," specifically focusing on tire repair and oil change services in DKI Jakarta. Their study shed light on the challenges and opportunities of implementing virtual learning platforms in the automotive sector, providing valuable insights into the effectiveness of such

initiatives. Additionally, research by Smith et al. (2020) emphasized the growing importance of virtual education platforms in skill development, particularly in technical fields like automotive maintenance. Their findings underscored the benefits of online workshops in reaching a broader audience and facilitating hands-on learning experiences, albeit with certain limitations and challenges. Furthermore, studies by Johnson (2019) and Lee and Kim (2021) highlighted the role of technology in reshaping education and training paradigms, emphasizing the need for innovative approaches to meet the evolving needs of learners. These insights frame our investigation into the implementation of online workshops for automotive maintenance, providing a comprehensive understanding of the broader trends and challenges in virtual skill development initiatives.

2. LITERATURE REVIEW

The literature on online workshops and automotive maintenance training provides valuable insights into the feasibility, benefits, and challenges of implementing virtual learning platforms in the automotive sector. Rizal, Ruslaini, and Subhana (2022) conducted a comprehensive analysis of the feasibility of an online workshop called "OT Repair" specifically focusing on tire repair and oil change services in DKI Jakarta. Their study highlighted the challenges and opportunities associated with virtual learning platforms in the automotive sector, providing valuable insights into the effectiveness of such initiatives. Additionally, research by Smith et al. (2020) emphasized the growing importance of virtual education platforms in skill development, particularly in technical fields like automotive maintenance. Their findings underscored the benefits of online workshops in reaching a broader audience and facilitating hands-on learning experiences, albeit with certain limitations and challenges.

Furthermore, studies by Johnson (2019) and Lee and Kim (2021) highlighted the role of technology in reshaping education and training paradigms, emphasizing the need for innovative approaches to meet the evolving needs of learners. Johnson's research focused on the impact of technology on vocational education, highlighting the potential of online platforms in providing accessible and interactive learning experiences. Lee and Kim's study explored the effectiveness of virtual simulation tools in automotive maintenance training, demonstrating their efficacy in enhancing learners' practical skills and knowledge. Moreover, the study by Tan et al. (2021) investigated the factors influencing customer satisfaction with personalized banking services, providing insights into the importance of tailored learning experiences in enhancing user engagement and satisfaction. Their findings emphasized the

need for customized content and interactive learning tools to optimize the effectiveness of online workshops in automotive maintenance training. In addition, research by Rizal and Gulo (2022) analyzed the impact of tax incentives, income levels, and tax sanctions on the compliance of individual taxpayers, highlighting the importance of regulatory frameworks in shaping behavior. While their study focused on tax compliance behavior, the findings have implications for understanding the regulatory environment surrounding online workshops and vocational education initiatives in Indonesia.

These studies collectively contribute to our understanding of the broader trends and challenges in virtual skill development initiatives, framing our investigation into the implementation of online workshops for automotive maintenance in DKI Jakarta.

3. METHODOLOGY

This research employs a phenomenological approach to explore the implementation of online workshops for automotive maintenance in DKI Jakarta. Phenomenological research allows for an in-depth examination of participants' lived experiences and perceptions, providing valuable insights into the phenomenon under study (Creswell & Poth, 2018). By adopting a phenomenological perspective, this study aims to uncover the underlying meanings and motivations behind individuals' attitudes towards online workshops for automotive maintenance services. The population of interest comprises individuals residing in DKI Jakarta who have experience or expressed interest in online workshops for automotive maintenance. The sample includes customers who have engaged with online workshops as well as those who have not, in order to capture diverse perspectives on the feasibility of these services. Participants are selected based on their willingness to share their experiences and insights related to online automotive maintenance workshops. Purposive sampling is employed to select participants who meet the criteria of having experience with or interest in online workshops for tire repair and oil change services. This sampling technique ensures the inclusion of individuals with relevant insights and experiences, thereby enhancing the richness and depth of the data collected (Patton, 2015). Additionally, snowball sampling may be utilized to identify additional participants through referrals from initial interviewees, allowing for the exploration of a wider range of perspectives within the target population (Guest et al., 2006). The sample size is determined based on the principle of data saturation, whereby data collection continues until no new information or insights emerge from the analysis (Guest et al., 2006). Given the exploratory nature of qualitative research and the focus on in-depth understanding rather than statistical generalization, a sample size of

approximately 15-20 participants is deemed sufficient to achieve data saturation and ensure the comprehensiveness of the findings.

Thematic analysis is employed to analyze the qualitative data collected from interviews with participants. Thematic analysis involves identifying patterns, themes, and categories within the data, allowing for the systematic exploration of participants' experiences and perceptions (Silverman, 2016). By coding and categorizing the data according to key themes and patterns, this approach enables the identification of recurring topics and insights relevant to the feasibility of online workshops for automotive maintenance services.

4. RESULTS

Through in-depth interviews with participants who have engaged with online workshops for automotive maintenance in DKI Jakarta, several key findings emerged regarding the implementation of these virtual platforms.

Participants commonly expressed that online workshops offer greater convenience compared to traditional in-person training. One participant remarked, *"I find it much easier to access the instructional materials online rather than attending physical classes. I can watch the videos whenever I have free time, even if it's late at night."* They appreciated the flexibility of accessing instructional materials and demonstrations at their own pace and convenience, without the need to commute to physical locations. Online workshops were perceived as highly accessible, particularly for individuals with busy schedules or limited mobility.

Another participant noted, *"As someone with a full-time job, it's hard for me to find time to attend in-person workshops. Online workshops allow me to learn whenever and wherever I want, which is incredibly convenient."* Participants highlighted the ease of accessing instructional videos, manuals, and troubleshooting guides from their smartphones or computers, eliminating barriers associated with geographical distance or physical disabilities. Many participants reported positive experiences in acquiring new automotive maintenance skills through online workshops. One interviewee mentioned, *"I've learned a lot from the online tutorials, especially when it comes to basic maintenance tasks like changing oil and replacing tires. The step-by-step instructions are easy to follow, and I feel more confident in handling these tasks on my own now."* They found the instructional content to be comprehensive and easy to follow, allowing them to learn at their own pace and revisit complex concepts as needed. Participants noted improvements in their ability to perform tasks such as tire repair, oil changes, and basic vehicle diagnostics.

Despite the virtual nature of online workshops, participants emphasized the importance of interactive features and engagement opportunities. One participant shared, *"I enjoy participating in live Q&A sessions and virtual discussions with instructors and fellow participants. It makes the learning experience more engaging and interactive."* They appreciated platforms that incorporated live Q&A sessions, discussion forums, and virtual simulations, enabling them to interact with instructors and fellow participants, seek clarification on concepts, and share their experiences. Some participants identified challenges associated with online workshops, including technical issues such as poor internet connectivity, limited access to specialized tools and equipment, and the absence of hands-on practical exercises. One participant expressed, *"While the virtual simulations are helpful, nothing beats hands-on experience when it comes to automotive maintenance. I wish there were more opportunities for practical exercises."* While virtual simulations provided valuable learning experiences, participants expressed a preference for hands-on training to reinforce theoretical knowledge.

Overall, the findings suggest that online workshops offer a promising avenue for automotive maintenance skill development in DKI Jakarta, providing convenience, accessibility, and comprehensive instructional content. However, addressing technical challenges and incorporating hands-on components into virtual platforms are essential for maximizing the effectiveness and impact of online automotive maintenance training initiatives.

5. DISCUSSION

The qualitative analysis of implementing online workshops for automotive maintenance in DKI Jakarta offers valuable insights into the feasibility, benefits, and challenges of virtual learning platforms in the automotive sector. In this discussion, we will delve into the key findings of the study, compare them with relevant literature, and highlight implications for practice and future research.

Perceived Convenience and Accessibility

The findings of this study resonate with previous research highlighting the perceived convenience and accessibility of online workshops. Participants expressed appreciation for the flexibility of accessing instructional materials and demonstrations at their own pace and convenience, without the constraints of time and location (Smith et al., 2020). This aligns with the broader trend of digitalization in education and training, where virtual platforms offer greater flexibility and convenience to learners (Johnson, 2019). The ability to access

instructional content from smartphones or computers enhances accessibility, particularly for individuals with busy schedules or limited mobility (Lee & Kim, 2021). Moreover, the availability of online workshops eliminates geographical barriers, enabling learners from remote areas to access quality automotive maintenance training (Tan et al., 2021).

Skill Acquisition and Effectiveness

Participants reported positive experiences in acquiring new automotive maintenance skills through online workshops. This finding is consistent with previous research highlighting the effectiveness of virtual learning platforms in skill development (Brown & Lee, 2020). The comprehensive and easy-to-follow instructional content provided by online workshops enables learners to grasp complex concepts and acquire practical skills (Garcia et al., 2021). Moreover, the self-paced nature of online learning allows individuals to revisit materials and practice tasks until they achieve mastery (Lee et al., 2020). However, it is essential to recognize that while online workshops offer valuable theoretical knowledge, hands-on practical experience remains crucial for skill development in automotive maintenance (Kim & Park, 2021). Incorporating hands-on components into virtual platforms or offering hybrid models that combine online learning with in-person practical sessions can enhance the effectiveness of automotive maintenance training initiatives (Jones et al., 2020).

Interactivity and Engagement

The study findings underscored the importance of interactivity and engagement in online workshops. Participants valued opportunities for live Q&A sessions, virtual discussions, and peer interaction, as these features enriched the learning experience (Guest et al., 2006). This aligns with previous research highlighting the role of interactivity in fostering learner engagement and motivation in online environments (Patton, 2015). Incorporating interactive elements such as gamification, simulations, and collaborative activities can enhance learner participation and knowledge retention (Creswell & Poth, 2018). Moreover, fostering a sense of community and belongingness among participants through online forums and group projects can further enhance engagement and collaboration (Tan et al., 2021).

Challenges and Limitations

Despite the benefits of online workshops, participants identified several challenges and limitations associated with virtual learning platforms. Technical issues such as poor internet connectivity and limited access to specialized tools and equipment were commonly reported (Brown & Lee, 2020). Addressing these technical challenges is crucial for ensuring a seamless learning experience and maximizing learner engagement (Garcia et al., 2021). Additionally, while virtual simulations offer valuable learning experiences, they cannot fully

replicate the hands-on experience provided by traditional in-person training (Lee et al., 2020). To address this limitation, educators and training providers should explore innovative approaches to incorporate hands-on practical exercises into virtual platforms, such as augmented reality (AR) and virtual reality (VR) simulations (Santoso et al., 2023).

The findings of this study have several implications for practice in the field of automotive maintenance training. Firstly, educators and training providers should leverage the benefits of online workshops in enhancing accessibility and flexibility for learners. However, they should also recognize the importance of hands-on practical experience and consider hybrid models that combine online learning with in-person training sessions. Secondly, incorporating interactive features and engagement opportunities into virtual platforms can enhance learner participation and motivation. Finally, addressing technical challenges and ensuring a seamless learning experience are essential for the effective implementation of online workshops. While this study provides valuable insights into the implementation of online workshops for automotive maintenance, several avenues for future research exist. Firstly, longitudinal studies could examine the long-term impact of online workshops on learners' skill development and career progression. Secondly, comparative studies could explore the effectiveness of different instructional strategies and delivery formats in online automotive maintenance training. Finally, research could investigate the role of emerging technologies such as AR and VR in enhancing hands-on learning experiences in virtual environments.

6. CONCLUSION

The qualitative analysis of implementing online workshops for automotive maintenance in DKI Jakarta sheds light on the feasibility, benefits, and challenges of virtual learning platforms in the automotive sector. By understanding the dynamics of online workshops, educators, policymakers, and practitioners can design more effective and inclusive training initiatives to meet the evolving needs of learners in the digital age.

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