



EXPLORING THE DIGITAL ADVANTAGE: HOW SMES IN TIRUPUR LEVERAGE ONLINE STRATEGIES

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INTRODUCTION

Technological developments are essential for MSMEs to digitalize since they reshape market conditions and business processes while decreasing transaction costs (Sofyan Hadinata, 2023). Digital technologies enable MSMEs to expand their client and supplier networks via e-commerce and streamline accounting through e-invoicing. Online marketing leverages social media and digital platforms for global outreach. A strong online presence is crucial for SMEs to enhance market reach and withstand economic downturns (Adisaksana, 2022). Digital marketing empowers MSMEs to drive growth, with many leveraging online platforms for distribution and promotion, including restaurants. Meanwhile, businesses relying solely on offline methods struggle to keep up. For MSMEs, digital marketing is essential to expand reach via search engines, social media, and websites. A strong online presence, mobile-friendly design, SEO, and digital ads enhance visibility and attract a broader audience (Artanto et al., 2017). At the same time, micro, small, and medium-sized enterprises (MSMEs) can increase their client recognition and outreach through internet advertising by targeting certain audience categories. Utilizing these tools allows MSMEs to create a strong online presence, increase their exposure, and compete better in the online economy. Industry 4.0 integrates IoT, cloud, and cognitive computing, transforming manufacturing by merging traditional production with advanced technologies. This automation and data sharing enhance efficiency, competitiveness, and market resilience. Digital technologies also offer MSMEs a unique competitive edge by enabling them to redesign their business processes to match evolving market conditions. Studies emphasize the significance of these technologies in transforming customer experiences and competitive advantages across business landscapes. Many MSMEs hesitate to adopt digital solutions due to limited resources, but COVID-19 highlighted their necessity. Embracing digital marketing helps MSMEs stay competitive and grow in the evolving business landscape (Bruce et al., 2023). Digital marketing,

through social media and e-commerce, boosts MSME market presence and sales. A case study on “Es Dawet Wong Ndeso” showed significant growth from digital adoption. Though cost-effective, many MSMEs struggle with digital skills, limiting their potential (Purba et al., 2021). Unreliable internet, online fraud, and fierce competition challenge MSME digital success. However, training in digital marketing and business registration strengthens their market position. MSMEs are encouraged to maximize tools like Google Business Profiles and social media to reach and engage with customers effectively. Partnerships with digital platforms have shown to further support MSMEs in expanding their marketing reach and refining their marketing approaches (Añón Higón & Bonvin, 2024). While digital transformation creates opportunities, some MSMEs still rely on traditional marketing, limiting their growth in a digital economy. Digitalization helps MSMEs expand, boost efficiency, and compete globally. Overcoming challenges requires strategic support, including digital training and essential tools, to drive resilience and growth (Lin & Xu, 2024).

REVIEW OF LITERATURE

Impact of Digital Presence on Sales Growth

Digital presence significantly influences sales growth in small versus medium enterprises (SMEs), with varying impacts based on their size and resources. The research indicates that while both small and medium enterprises benefit from digital marketing, the extent and nature of these benefits differ. Small businesses tend to depend on online platforms to gain visibility, hence becoming easier for customers to access, which in turn can boost sales (Sudirjo, 2023). Online marketing enables small companies to compete with larger companies at reduced costs using techniques such as social media and SEO to cover larger markets. Platforms like live streaming on social media provide direct access to customers, enabling engagement and possibly improving sales. Medium businesses utilize digital marketing for sustainable development, making use of data analytics to realize consumer behavior and adjust marketing strategies (Bruce et al., 2023). They are able to adopt more advanced marketing tactics, including customized promotions and product recommendations, that drive customer loyalty and sales. Medium businesses usually have greater resources to invest in digital marketing software, enabling a broader reach and effect than smaller counterparts. While online presence is important for both small and medium businesses, the latter tend to derive bigger advantages as a result of the availability of resources and the capacity to adopt sophisticated marketing practices. Yet, challenges like limited digital tool understanding still exist in both categories, which require continuous training and support (Agama Islam Negeri Palangkaraya et al., 2023).

H1: Medium-sized businesses have a greater positive effect of digital presence on sales growth compared to small businesses.

Effect of Digital Presence on Operational Efficiency

The effect of digital presence on operational efficiency varies significantly between small and medium enterprises (SMEs). Digitalization enhances operational efficiency by streamlining processes, improving productivity, and fos-

tering better customer experiences. However, the extent of these benefits can differ based on the size of the enterprise. Small enterprises often face limited resources, making it challenging to invest in digital technologies. Despite this, those that do adopt digital solutions can see substantial improvements in operational efficiency (Lucian Dimoso & Utonga, 2024). The incorporation of e-commerce has been shown to directly enhance performance by optimizing operational processes, which is crucial for small businesses aiming to compete in a digital marketplace (Santos-Jaén et al., 2023). Medium enterprises typically have more resources to invest in digital technologies, leading to a higher digital intensity index. This results in greater operational efficiency compared to small enterprises (Kyshakevych et al., 2024). The economic impact of digital transformation is more pronounced in medium enterprises, as they can leverage digital tools to enhance productivity and contribute significantly to overall economic growth (Kádárová et al., 2023). While digitalization presents opportunities for both small and medium enterprises, the challenges faced by smaller firms may limit their ability to fully capitalize on these benefits. Conversely, medium enterprises often experience more substantial gains due to their greater capacity for investment in digital technologies (Jenifer et al., 2024).

H2: Digital presence significantly enhances operational efficiency in medium enterprises compared to small enterprises.

Influence of Digital Presence on Customer Satisfaction

Digital presence significantly influences customer satisfaction in small and medium enterprises (SMEs) by enhancing communication, service quality, and overall consumer experience. The integration of digital marketing strategies, particularly through social media and e-commerce, allows SMEs to engage directly with customers, thereby improving satisfaction levels. Digital marketing facilitates real time interaction between SMEs and consumers, enhancing customer engagement and satisfaction (Siregar, 2023). Social media platforms serve as effective tools for SMEs to disseminate information and promote products, leading to increased customer awareness and loyalty. The quality of online services, including responsiveness and reliability, directly impacts customer satisfaction. Enhanced online service quality fosters a positive consumer value perception, which mediates satisfaction levels. Implementing web-based customer relationship management (e-CRM) systems can streamline service delivery, further improving customer satisfaction. The richness of digital communication channels (text, audio, video) affects customer satisfaction, with higher media richness correlating with better customer experiences. Perceived social presence in digital interactions also plays a crucial role in shaping customer satisfaction, emphasizing the importance of effective communication strategies (Khojeh et al., 2013). Conversely, while digital presence can enhance customer satisfaction, it may also lead to challenges such as information overload or miscommunication, which can negatively impact the customer experience if not managed effectively (Hallal, 2013).

H3: Digital presence has a more significant positive impact on customer satisfaction in medium enterprises compared to small enterprises.

METHODOLOGY

To examine the effects of digital presence on three critical outcomes - sales growth, operational efficiency, and customer satisfaction among small and medium firms in Tirupur, this study applies a quantitative research methodology and uses an Independent Sample T-test. To examine these correlations, the study takes a cross-sectional strategy, gathering information at a particular instant in time. The 158 businesses that made up the sample are all from Tirupur, and they range from very tiny to medium-sized. To avoid selection bias as much as possible and ensure maximal sample representation, a random sampling procedure was employed so that each business would have an equal opportunity of being selected. Data were collected by using a structured questionnaire in an attempt to measure the impact of digital presence on sales increases, operational efficiency, and customer happiness. Respondents can evaluate these factors with precision and accuracy since the questionnaire contains Likert-scale items as well as categorical questions. To compare the means of small and medium enterprises with and without a digital presence on sales growth, operational efficiency, and customer satisfaction, the Independent Sample T-test is used. Based on the level of digital presence, this test will identify whether there are statistically significant differences in these outcomes.

RESULTS

This part elaborates on each of the main outcomes at length: sales growth, operational performance, and customer satisfaction, emphasizing statistical significance as well as practical implications of the results. The analysis investigates how digital presence affects these factors of enterprise performance in small and medium enterprises, providing comparative insight between the two categories. Each hypothesis is tested based on the outcome presented, bringing into relief the contribution of digital adoption to enterprise performance in the competitive environment of Tirupur.

Table No I: Group Statistics for MSME Classification on Sales Growth

Group Statistics					
	How would you classify your MSME	N	Mean	Std. Deviation	Std. Error Mean
How does digital presence impact sales growth?	Small enterprises	89	2.8764	1.41277	.14975
	Medium enterprises	69	2.9420	1.37075	.16502

The average score for small businesses is 2.88 when it comes to the effect of digital presence on sales growth, whilst the average score for medium businesses is 2.94. This resemblance implies that both groups view the impact of digital presence on sales growth as being similar.

Table No II: Independent Samples Test for Digital Presence Impact on Sales Growth

Independent Samples Test		Levene's Test for Equality of Vari-		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
How does digital presence impact sales growth?	Equal variances assumed	.093	.761	-.293	156	.770	-.06562	.22370	-.50749	.37624
	Equal variances not assumed			-.294	148.366	.769	-.06562	.22284	-.50597	.37472

To determine if small and medium-sized businesses' digital presences have different effects on sales growth, we used the Independent Samples T-test. To start, we check if the two groups' variances are equivalent using Levene's Test for Equality of Variances. A significance level (Sig.) of 0.761 and an F-value of 0.093 were produced by the test, both of which are higher than the conventional cutoff of 0.05. We can therefore infer that the two groups have identical variances for the t-test, as there is no statistically significant difference in the variances. According to the data, there is no statistically significant difference in the effect of digital presence on sales growth for small and medium firms in this sample. The non-significant mean difference and confidence interval crossing zero imply that both groups appear to view the impact equally.

Hypothesis Testing Result

Given the non-significant p-value is greater than the alpha level of 0.05, the result fails to reject the null hypothesis. Therefore, there is insufficient evidence to support the assertion that medium enterprises experience a greater positive impact from digital presence on sales growth compared to small enterprises. Both groups perceive the impact of digital presence on sales growth similarly.

Table No III: Group Statistics for MSME Classification on operational efficiency

Group Statistics					
	How would you classify your MSME	N	Mean	Std. Deviation	Std. Error Mean
	Medium enterprises	69	3.3623	1.25991	.15168

The average score for small businesses regarding the influence of digital presence on operational efficiency is 2.85, whereas the average score for medium-sized businesses is 3.36. This suggests that, in comparison to small businesses, medium-sized businesses believe that their digital presence significantly improves operational efficiency.

Table No IV: Independent Samples Test for Digital Presence Impact on Operational Efficiency

Independent Samples Test		Levene's Test for Equality		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
To what extent has digital presence improved operational efficiency in your MSME?	Equal variances assumed	3.979	.048	-2.289	156	.023	-.50839	.22208	-.94706	-.06971
	Equal variances not assumed			-2.335	154.467	.021	-.50839	.21773	-.93850	-.07828

To determine if the influence of digital presence on operational efficiency varies statistically significantly between small and medium-sized businesses, the Independent Samples T-test was used. With a significance level (Sig.) of 0.048, the F-value for Levene's Test is 3.979, just below the 0.05 cutoff. The t-test findings under "Equal variances not assumed" should be utilized since this shows that the variances between the two groups are not equal. The findings indicate that small and medium-sized businesses are considerably impacted by digital presence in terms of operational efficiency, with medium-sized businesses perhaps gaining more from it. Compared to medium-sized businesses, small businesses appear to experience a smaller improvement in operational efficiency, as indicated by the negative mean difference (-0.50839).

Hypothesis Testing Result

Since the p-value is significant, result rejects the null hypothesis and accept the alternative hypothesis (H2). This suggests that digital presence does lead to a greater improvement in operational efficiency in medium enterprises compared to small enterprises, indicating a notable difference in perceptions between the two groups.

Table No V: Group Statistics for MSME Classification on Customer Satisfaction

Group Statistics					
	How would you classify your MSME	N	Mean	Std. Deviation	Std. Error Mean
How has digital presence influenced customer satisfaction in your MSME?	Small enterprises	89	3.4157	1.37187	.14542
	Medium enterprises	69	2.5217	1.23203	.14832

The average score for small businesses regarding the impact of their digital presence on customer satisfaction is 3.42, while the average score for medium-sized businesses is 2.52. This implies that, in comparison to medium-sized businesses, small businesses believe that their internet presence has a greater positive influence on customer satisfaction.

Table No VI: Independent Samples Test for Digital Presence Impact on Customer Satisfaction

Independent Samples Test		Levene's Test		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
How has digital presence influenced customer satisfaction in your MSME?	Equal variances assumed	1.831	.178	4.246	156	.000	.89399	.21057	.47806	1.30992
	Equal variances not assumed			4.304	152.603	.000	.89399	.20771	.48363	1.30436

To determine if the influence of digital presence on customer satisfaction varies statistically significantly between small and medium-sized businesses, the Independent Samples T-test was used. With a significance level (Sig.) of 0.178 and an F-value of 1.831 for Levene's Test, the results are above the 0.05 cutoff. We can assume equal variances for the t-test since this shows no discernible difference in variances between the two groups. According to the findings, medium-sized businesses' digital presence has a much bigger effect on customer satisfaction than does small

business. Medium-sized businesses see a greater increase in customer satisfaction as a result of their digital presence than do small businesses, according to the positive mean difference (0.89399). This demonstrates how much more of an impact digital presence has on improving customer satisfaction for medium-sized businesses in the sample.

Hypothesis Testing Result

With a p-value well below the significance level of 0.05, the result rejects the null hypothesis and accept the alternative hypothesis (H3). This finding indicates that digital presence has a significantly stronger positive effect on customer satisfaction in medium enterprises than in small enterprises, suggesting that medium enterprises benefit more from their digital initiatives in enhancing customer satisfaction.

CONCLUSION

This study emphasizes how important digital presence is to improving MSMEs' success in Tirupur. MSMEs must now incorporate digital strategies in order to stay competitive as the business environment changes in tandem with technology. The findings emphasize the necessity for such businesses to effectively leverage online channels in their pursuit of enhancing revenue, consumer engagement, and general operational efficiency. Besides expanding their awareness within their market, MSMEs can build stronger client relationships through an active response to digital transformation. This research points out that for MSMEs with aspirations to thrive and expand in the long run in a rapidly digitalized economy, digital presence investment is a strategic imperative rather than an option. Aside from the particular environment of Tirupur, the study's findings offer MSMEs in allied industries and regions valuable information. Future research needs to explore how digital presence influences MSME performance in the long term and consider how consumer behavior is evolving in the digital age.

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