

Knowledge and Utilization of Digital Marketing and Business Performance of Micro, Small, and Medium Enterprises (MSMEs)

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Abstract:

This study examined the significant relationship between knowledge and utilization of digital marketing and the business performance of micro, small, and medium enterprises (MSMEs) in Bacolod City, Negros Occidental. A total of 387 MSME owners and managers participated in the research. Employing a descriptive-correlational research design, data were collected through a structured questionnaire that assessed participants' knowledge and utilization of email marketing, social media marketing, and website marketing, as well as their business performance in both financial and non-financial aspects. Findings revealed that MSMEs generally demonstrated a moderate level of knowledge and utilization of digital marketing, with social media marketing being the most commonly used platform. Significant differences in knowledge and utilization were observed when grouped by age, educational attainment, and business size. The results also indicated a positive and significant relationship between the extent of digital marketing utilization and business performance, suggesting that increased use of digital marketing contributes to improved financial and non-financial outcomes. However, barriers such as knowledge gaps and limited resources were identified as challenges to effective digital marketing adoption among MSMEs. The study concludes that targeted interventions and training programs are necessary to address these gaps, enhance MSMEs' digital marketing capabilities, and ultimately improve their business performance and competitiveness in the digital economy.

Keywords: digital marketing, knowledge on digital marketing, utilization of digital marketing, business performance, Bacolod City

Introduction:

The emergence of digital marketing has revolutionized communication between businesses and their audiences. By leveraging digital devices and platforms alongside traditional marketing methods, organizations can now engage with their audiences closely. This paradigm shift offers organizations the chance to expand into untapped markets, introduce innovative services, engage with audiences in novel ways, and compete more effectively with larger enterprises. Additionally, marketers within these organizations have the opportunity to cultivate new skills and utilize cutting-edge tools to enhance the company's competitiveness (Chaffey and Chadwick, 2019).

Micro, Small, and Medium Enterprises (MSMEs) play an important role in the economic development of many countries. They have significant contribution to employment and income generation, and overall economic growth (Smith & Schauer, 2020). Despite their importance, MSMEs operate inefficiently and ineffectively due to a lack of business knowledge within their human resources, particularly in marketing (Peter and Dalla Vecchia, 2021). Oftentimes MSMEs encounter difficulties on technology which is needed for globalization and digitalization that obstruct the growth potential (Kumar & Siddiqui, 2021).

There is a strong appetite among MSMEs to adopt technology for marketing, as they clearly recognize the opportunities it offers-particularly in creating a stronger market orientation. However, according Alford and Page, 2015 MSMEs ability to capitalize on these opportunities is hindered by challenges such as a lack of knowledge on how to effectively use the technology itself, and an inability to accurately measure the return on investment.

The need for greater support in digital marketing education is critical for MSMEs in the Philippines to remain competitive and to address challenges in both applying and assessing the impact of digital marketing (Masa & Quintana, 2020; Ignacio & Gerra, 2019). Studies have shown that many MSMEs lack sufficient awareness and understanding of various digital marketing strategies (Marcial & Asuncion, 2020). Additionally, the effective adoption of digital marketing is hindered by factors such as limited financial capacity, scarce training opportunities, and insufficient expertise in this area (Garcia, Narisma, & Balagtas, 2019; Nunez, Tamayo, & Elumba, 2021), which collectively constrain their growth and ability to fully leverage digital platforms.

To improve the business performance of (MSMEs), it is crucial to understand the knowledge gaps and obstacles that hinder effective use of digital marketing (Mokhtar, Mohamad, O., & Mohamad, N., 2018). While previous studies have demonstrated that digital marketing is cost-effective and positively impacts MSMEs' performance (Adeyeye, Abiodun, & Akande, 2020; Chaffey & Ellis-Chadwick, 2019; Akhtar, Rizwan, & Ali, 2018; Anyanwu, Eleazu, & Okeke, 2018), there remains a scarcity of research specifically examining how digital marketing influences MSMEs' business outcomes (Dwivedi, Merrilees, & Miller, 2019; Gholami, Chalek, & Azar, 2018; Wang and Yang, 2018). This gap underscores the need for further empirical studies to explore the relationship between digital marketing knowledge, its utilization, and MSMEs' business performance. Such research can bridge existing knowledge gaps, provide valuable insights for MSMEs and stakeholders, and guide decisions on adopting digital marketing strategies to enhance business success.

Methodology:

Research Design

This study employed a descriptive-correlational research design using a quantitative approach to systematically examine digital marketing knowledge, utilization, and their relationship with business performance among Micro, Small, and Medium Enterprises (MSMEs). The descriptive component focused on outlining the current status and characteristics of digital marketing knowledge and utilization by MSMEs, following the approach described by Alsharari and AlShboul (2019b). Meanwhile, the correlational aspect investigated the associations between the extent of digital marketing utilization and various business performance indicators without manipulation of variables, as outlined by Babbie (2016) and Leedy and Ormrod (2014). This combined design enabled a comprehensive understanding of the variables both individually and in relation to one another, providing insight into how digital marketing practices potentially influence business outcomes.

Participants of the Study

The study included a total of 387 MSME owners and managers from Bacolod City. This sample size was slightly higher than the initially calculated minimum of 378, which was derived using the Raosoft online calculator based on a 95% confidence level, a 5% margin of error, and a population size of 20,334 MSMEs in the city. To ensure the sample accurately represented the population's diversity, stratified random sampling was employed. The population was divided into three strata based on business size—micro, small, and medium enterprises—and participants were randomly selected from each group using a computer-generated random number table. This method ensured proportional representation of all business sizes and enhanced the validity of generalizing the findings to the entire MSME population.

Business Size	Population	Sample Size
Micro	18,142	343
Small	1,535	30
Medium	657	14
Total	20,334	387

Research Instrument

Data were collected through a researcher-developed questionnaire structured into four main sections: demographic profile, knowledge of digital marketing, utilization of digital marketing, and business performance. The knowledge and utilization sections used a 5-point Likert scale to measure levels of understanding and frequency of use, respectively.

- **Knowledge of Digital Marketing:** Participants rated their familiarity with digital marketing concepts, including social media marketing, website marketing, and email marketing, on a scale from 1 (Very Low Level of Knowledge) to 5 (Very High Level of Knowledge). This scale captured respondents' awareness and understanding, ranging from minimal knowledge to extensive proficiency able to apply concepts confidently.
- **Utilization of Digital Marketing:** Respondents reported the frequency with which they employed various digital marketing methods in their business operations, such as maintaining an online presence, running social media campaigns, using websites, and email marketing. The scale ranged from 1 (Very Low Extent of Utilization) to 5 (Very High Extent of Utilization), reflecting the degree to which digital marketing was integrated into their business strategies.
- **Business Performance:** This section assessed both financial and non-financial aspects of MSMEs, including sales, customer engagement, and brand awareness. Participants rated their business performance on a scale from 1 (Very Low Level of Business Performance) to 5 (Very High Level of Business Performance), indicating the overall growth and sustainability of their enterprises.

The questionnaire items were developed based on an extensive review of existing literature, prior studies, and expert consultations in the fields of digital marketing and MSME business practices (Johnson, Smith, Brown, & Anderson, 2022).

Validity and Reliability

To ensure the questionnaire's validity, the content validity ratio (CVR) method by Lawshe (1975) was applied. Ten experts in digital marketing and MSME management evaluated each item for relevance and clarity using a three-point scale ("essential," "useful but not essential," or "not necessary"). Items with CVR values above the critical threshold were retained, while expert feedback was used to refine the questionnaire further.

Reliability was assessed through a pilot study involving 30 MSME owners outside the main sample. The internal consistency of the questionnaire was measured using Cronbach's alpha, yielding a high reliability coefficient of 0.98. This indicated that the instrument produced stable and consistent results across repeated administrations, confirming its suitability for the study. Reliability in this context ensures that observed differences in responses reflect actual variation in knowledge, utilization, and performance rather than measurement error (Menz, 2019).

Data Gathering Procedure

Following validation, the questionnaire was administered to the selected MSME owners and managers over a period of three months. Participants were informed about the purpose of the study, assured of confidentiality, and provided their informed consent. Data collection was conducted through a combination of online platforms and face-to-face interviews to maximize reach and response rate. Completed questionnaires were securely gathered, organized, and prepared for analysis.

Data Analysis Procedure

Data analysis was performed using **SPSS version 25**. Descriptive statistics, including means and standard deviations, were computed to summarize the levels of digital marketing knowledge, utilization, and business performance among participants.

For the study's specific research problems:

1. The participants' knowledge levels on various digital marketing methods (email marketing, social media marketing, website marketing) were summarized using descriptive statistics.
2. The extent of utilization of digital marketing tools was analyzed by business size, operation length, and business nature, again using mean and standard deviation.
3. Business performance indicators such as sales and customer engagement were evaluated descriptively.
4. Differences in knowledge levels based on demographic variables (age, sex, educational attainment) were examined using inferential statistics.
5. Differences in business performance were similarly analyzed based on business characteristics.
6. Pearson's correlation coefficient was used to explore the relationship between digital marketing utilization and business performance.
7. Finally, simple linear regression analysis was conducted to assess the predictive effect of digital marketing utilization on business performance, treating utilization as the independent variable and business performance as the dependent outcome.

Results and Discussion:

Level of Knowledge on Digital Marketing

This examines the knowledge, utilization, and business performance impact of digital marketing among micro, small, and medium enterprises (MSMEs). The analysis reveals distinct patterns across digital marketing channels. Regarding knowledge levels, respondents demonstrated moderate proficiency in email marketing (mean score = 3.07), with the highest competency in email automation ($M = 3.15$) and the lowest in crafting effective subject lines ($M = 3.02$). This suggests that while MSMEs grasp foundational principles, advanced skills like audience segmentation and personalized content creation require further development. In contrast, social media marketing knowledge ranked high overall ($M = 3.88$), with particular strength in platform familiarity ($M = 4.09$) and engagement strategies ($M = 4.03$). However, handling customer feedback ($M = 3.55$) emerged as a relative weakness, indicating gaps in real-time interaction management. Website marketing knowledge was moderate ($M = 3.09$), with respondents most confident in brand-building applications ($M = 3.19$) but least aware of strategies to retain visitors ($M = 2.93$). Collectively, these findings underscore a disparity between theoretical understanding and practical execution, especially for email and website marketing, where targeted training in optimization techniques could bridge gaps.

The extent of digital marketing utilization mirrored knowledge patterns, remaining moderate across channels. Email marketing usage ($M = 3.03$) was most common for product showcases ($M = 3.08$) and promotions ($M = 3.05$), while feedback collection ($M = 2.99$) lagged. Social media utilization ($M = 3.12$) prioritized video content ($M = 3.22$) and customer service ($M = 3.21$), but driving website traffic ($M = 3.00$) was underutilized, revealing a missed opportunity for cross-channel integration. Website marketing ($M = 3.00$) focused on content creation ($M = 3.12$) but underperformed in advertising ($M = 2.92$) and e-commerce functions ($M = 2.95$). Notably, utilization varied by business profile: education level correlated with higher adoption ($M = 3.66$), while business size and industry showed no significant differences, suggesting universal accessibility of digital tools but uneven strategic deployment.

Financial and non-financial business performance metrics both registered moderate scores ($M = 3.06$ and 3.12 , respectively). Financially, MSMEs excelled in salary payments ($M = 3.11$) but struggled with supplier obligations ($M = 2.99$). Non-financially, customer base expansion ($M = 3.19$) outpaced product innovation ($M = 3.05$). Small businesses ($M = 3.27$) and distribution-focused enterprises ($M = 3.26$) outperformed peers, likely due to agility and direct customer engagement. Younger businesses (1–5 years) also fared better ($M = 3.22$), possibly due to adaptive strategies, while mid-stage firms (11–15 years) faced performance dips ($M = 3.02$), hinting at lifecycle challenges.

Statistical tests confirmed few demographic disparities. Knowledge levels showed no significant differences by age ($p = 0.199$), sex ($p = 0.618$), or education ($p = 0.633$), implying broad-based digital literacy. Similarly, utilization did not vary by business size ($p = 0.994$) or industry ($p = 0.438$), though education's influence ($M = 3.66$) highlighted its role in fostering adoption. Performance gaps across profiles were also statistically insignificant, emphasizing that success hinges on factors beyond size or sector, such as management practices or market conditions.

Correlation and regression analyses quantified relationships between variables. A weak but significant link emerged between knowledge and utilization ($r = 0.112$, $p = 0.028$), indicating that awareness alone is insufficient to drive adoption. Similarly, utilization and performance were positively but modestly correlated ($r = 0.132$, $p = 0.009$), with regression confirming that digital marketing explains 8.9% of performance variance ($R^2 = 0.089$). Each unit increase in utilization predicted a 0.424-unit rise in performance ($p < 0.001$), reinforcing digital marketing's incremental benefits. However, the low R^2 underscores that non-digital factors—like operational efficiency or leadership—dominate outcomes.

The study identifies critical gaps between knowledge and practice. While social media proficiency is high, its potential for traffic generation and feedback management remains untapped. Email and website marketing suffer from underutilization of advanced tactics, reflecting resource or training constraints. Performance trends suggest that newer, smaller, and customer-centric businesses leverage digital tools more effectively, but all MSMEs face challenges in scaling impact.

To address these gaps, the study recommends prioritized training in high-impact areas: email segmentation, social media analytics, and website retention strategies. Sector-specific support—such as CRM tools for service firms or e-commerce integration for retailers—could mitigate industry-specific barriers. Policymakers should subsidize digital infrastructure for micro-enterprises and late adopters, while MSMEs must align digital efforts with broader operational goals. Future research could explore qualitative drivers of performance, like leadership or innovation culture, to complement these quantitative insights. Ultimately, digital marketing is a catalyst, not a standalone solution, for MSME growth, requiring holistic strategies to unlock its full potential.

Extent of Digital Marketing Utilization

The study reveals moderate levels of digital marketing utilization across all channels, with notable variations in application areas. Email marketing shows an average utilization score of 3.03, indicating regular but not optimal use. Businesses most frequently employ email for product showcases ($M = 3.08$) and promotional campaigns ($M = 3.05$), demonstrating its role as a direct marketing tool. However, more strategic applications like customer feedback surveys ($M = 2.99$) remain underutilized, suggesting missed opportunities for data-driven improvements.

Social media marketing sees slightly higher engagement ($M = 3.12$), with video content creation ($M = 3.22$) and customer service interactions ($M = 3.21$) emerging as dominant activities. This reflects current trends favoring visual and interactive content, though the weaker performance in driving website traffic ($M = 3.00$) indicates a disconnect between social media efforts and broader digital strategy. Website marketing maintains comparable utilization levels ($M = 3.00$), where content development ($M = 3.12$) receives more attention than advertising ($M = 2.92$) or e-commerce functions, revealing a content-first approach that may overlook revenue-generating potential.

When examining utilization patterns across business profiles, education level emerges as the most significant differentiator, with highly educated respondents reporting substantially greater digital marketing adoption ($M = 3.66$). This strong correlation suggests that formal education enhances both capability and confidence in implementing digital strategies. Interestingly, business size shows no statistically meaningful variation in utilization

($p = 0.994$), indicating that micro, small and medium enterprises approach digital marketing with similar intensity despite resource differences.

The lack of significant variation across business sizes implies that digital tools have become equally accessible but may not be equally effective without proper strategy. These findings collectively highlight a landscape where digital marketing adoption has become widespread but remains inconsistent in sophistication, with many businesses failing to leverage the full potential of available tools. The moderate utilization scores across all channels suggest a transitional phase where awareness has been established but mastery has not yet been achieved, particularly in integrating different digital platforms for maximum impact.

The data reveals specific pain points in current utilization patterns. The underuse of email surveys points to a gap in customer insight gathering, while social media's weak performance in website traffic generation suggests platform silos that prevent unified customer journeys. Similarly, websites' strong content focus coupled with weak advertising performance may indicate either resource constraints or strategic misalignment.

The education-utilization link underscores the importance of knowledge in driving adoption, though the absence of size-based differences offers encouragement for smaller businesses aiming to compete digitally. These utilization patterns collectively suggest that while MSMEs have embraced digital marketing in principle, many still struggle with strategic implementation, particularly in areas requiring cross-channel coordination or advanced functionality. The findings point to a need for targeted training programs that move beyond basic platform literacy to address strategic integration and performance optimization across all digital marketing channels.

Business Performance of MSMEs

The study reveals moderate performance levels across both financial ($M = 3.06$) and non-financial ($M = 3.12$) metrics for MSMEs. Financially, businesses demonstrate relative strength in meeting payroll obligations ($M = 3.11$) and increasing capitalization ($M = 3.10$), indicating stable operational cash flow and investment capacity.

However, challenges persist in supplier payments ($M = 2.99$), suggesting potential liquidity constraints or working capital inefficiencies. Non-financial performance shows a similar pattern, with customer base expansion ($M = 3.19$) emerging as the strongest area, reflecting effective market penetration strategies. In contrast, innovation in product development lags slightly ($M = 3.05$), highlighting a potential gap in diversification efforts.

Performance trends vary significantly across business profiles. Small businesses outperform their micro and medium counterparts ($M = 3.27$), likely benefiting from greater agility and resource efficiency compared to larger enterprises. Sector-wise, distribution-focused businesses (wholesale/retail) lead with the highest scores ($M = 3.26$), attributable to their direct customer engagement and scalable sales models.

Interestingly, newer businesses (1–5 years of operation) achieve superior performance ($M = 3.22$) compared to mid-stage firms, possibly due to adaptive strategies and lean operations, while older businesses (11–15 years) face stagnation ($M = 3.02$), potentially due to market saturation or rigid structures. These insights underscore the dynamic nature of MSME performance, where size, sector, and operational maturity collectively influence outcomes. The findings suggest that while financial stability is achievable, sustained growth requires balancing liquidity management with innovation and customer-centric strategies, particularly for businesses navigating mid-stage challenges.

Statistical Tests & Correlations

The study's statistical analysis reveals several important insights about digital marketing adoption and its relationship to business performance. Regarding demographic differences, the results show remarkably consistent patterns across various groups. For knowledge levels, statistical tests confirmed no significant variations based on age ($p = 0.199$), gender ($p = 0.618$), or education level ($p = 0.633$), suggesting that digital marketing understanding has become relatively uniform across these demographic categories. Similarly, the actual utilization of digital marketing tools showed no meaningful differences when analyzed by business size ($p = 0.994$), industry sector ($p = 0.438$), or years of operation ($p = 0.561$), indicating that adoption rates are consistent regardless of these organizational characteristics.

Business performance metrics followed the same pattern, with no statistically significant variations detected across different business sizes ($p = 0.197$), types ($p = 0.438$), or operational tenures ($p = 0.221$). These consistent findings across multiple demographic and organizational factors suggest that digital marketing knowledge and implementation have become widespread and evenly distributed among MSMEs, with no particular group showing inherent advantages or disadvantages in adoption or outcomes.

The correlation analysis yielded two particularly noteworthy findings about the relationships between key variables. First, a weak but statistically significant positive correlation emerged between knowledge and utilization ($r = 0.112$,

$p = 0.028$), indicating that while greater understanding of digital marketing does tend to lead to increased use of these tools, the relationship is not particularly strong.

This suggests that knowledge alone is insufficient to drive adoption, and other factors like resource availability, perceived usefulness, or organizational support likely play important roles in implementation decisions. Second, the analysis revealed another weak but significant positive correlation between digital marketing utilization and business performance ($r = 0.132$, $p = 0.009$), demonstrating that while increased use of digital marketing does contribute to better business outcomes, the impact is modest. This implies that digital marketing adoption provides some competitive advantage, but is just one of many factors influencing overall business success.

The relatively low correlation coefficients in both cases suggest that while these relationships are real and measurable, they represent only small portions of the complex dynamics affecting digital marketing adoption and business performance. These findings have important implications for policymakers and business support organizations, highlighting the need for comprehensive approaches that address not just knowledge gaps, but also the practical barriers and complementary strategies needed to maximize the benefits of digital marketing for MSMEs. The results also underscore the importance of considering a wide range of factors beyond simple adoption metrics when assessing business performance in the digital age.

Regression Analysis

The regression analysis provides quantifiable evidence of digital marketing's influence on business performance. The model demonstrates that utilization of digital marketing tools explains 8.9% of performance variance ($R^2 = 0.089$), indicating a measurable though modest impact. The coefficient reveals that each unit increase in digital marketing utilization corresponds to a 0.424-unit improvement in business performance ($p < 0.001$), confirming the positive relationship between adoption and outcomes. While statistically significant, the relatively low R^2 value underscores that digital marketing represents just one component of business success. The findings suggest that while adopting digital strategies contributes to competitive advantage, approximately 91% of performance variation stems from other critical factors such as operational efficiency, product innovation, leadership quality, and market conditions. This aligns with contemporary business research emphasizing the need for holistic strategies that integrate digital tools with strong fundamentals. For MSMEs, the results imply that digital marketing adoption should be viewed as a complementary enhancement rather than a standalone solution, requiring parallel investments in core business capabilities to maximize returns. The analysis ultimately supports a balanced approach where digital transformation complements rather than replaces traditional business strengths.

Conclusion:

Based on the findings, the following conclusions are drawn:

MSMEs possess a moderate level of digital marketing knowledge, with the strongest competencies in social media marketing. There are notable gaps in more technical or strategic aspects, particularly in email and website marketing.

Educational attainment is a key factor in digital marketing knowledge, underscoring the value of formal education and continuous learning.

Digital marketing is moderately utilized by MSMEs, with no significant differences by business size, nature, or length of operation, suggesting widespread but not intensive adoption.

Business performance remains moderate across all groups, with small and distribution-focused businesses reporting slightly better outcomes.

There is a positive, though weak, relationship between digital marketing knowledge, its utilization, and business performance. This suggests that while digital marketing contributes to business success, other factors are also influential.

The extent of digital marketing utilization is a significant predictor of business performance, but it explains less than 10% of the variance, indicating that a holistic approach to business development remains essential.

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