

Social Media Use Among School Administrators: A Mixed-Methods Approach to Scale Development and Validation

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ABSTRACT

This mixed-methods study had two aims: to determine the purpose of school administrators' use of social media and to develop and validate a scale measuring those purposes. In the qualitative phase, 15 school principals were interviewed individually, and the social media accounts of five principals were analyzed to identify purposes of use. In the second phase, an instrument was developed and validated across two independent samples of school administrators attending separate in-service training programs organized by the Turkish Ministry of National Education (MONE). Exploratory factor analysis (EFA; $n = 156$), using principal axis factoring with direct oblimin rotation, revealed a three-factor structure: stakeholder communication, personal use, and professional development, accounting for 65.52% of the total variance. Confirmatory factor analysis (CFA; $n = 148$) supported the factor structure with satisfactory model fit ($\chi^2/df = 1.60$, CFI = .955, RMSEA = .064). Convergent and discriminant validity were established through average variance extracted, composite reliability, McDonald's omega, and the Fornell-Larcker criterion.

Keywords: social media use; school administrators; scale development; digital leadership; confirmatory factor analysis

Internet connectivity has become a necessity in modern life (Srivastava, 2012), and the exponential growth of smartphones and high-speed internet over the past decade has resulted in an unprecedented increase in social media use (Yunus, 2023). A recent report on global technology usage statistics showed that approximately 4.76 billion people were social media users (We Are Social & Meltwater, 2023). Driven by technological advances and pandemic outbreaks, the prevalence and amount of time spent using social media have steadily increased (Tullett-Prado et al., 2023).

The broad range of meanings associated with the term social media has made its definition and impact a highly controversial issue. For instance, while some researchers have highlighted concerns about social media's potential to induce social anxiety and addiction (see Alkis et al., 2017; Baltacı, 2019; Dobrea & Pasarelu, 2016; O'Day & Heimberg, 2021; Willis et al., 2023; Wu et al., 2024), others (i.e., Donelan, 2016; Nisar & Whitehead, 2016; Rao & Kalyani, 2022; van Zoonen & Rice, 2017) have lauded its role in facilitating networking, marketing, and communication. Ambiguity remains about which instruments, venues, and social entities fall under the definition of social media, even though it has become an integral part of many people's daily lives (McCay-Peet & Quan-Haase, 2017). Recent studies also emphasize that social media serves multiple simultaneous purposes, functioning both as a professional platform for knowledge sharing and as a personal space for identity construction and social interaction (Beckman et al., 2024; Bowman et al., 2022).

In the educational field, the debate has shifted toward understanding how social media is not only shaping student experiences but also transforming the practices of school administrators and leaders (Cox & McLeod, 2014; Miller et al., 2023). In a general sense, social media is referred to as Web 2.0 services that allow users to communicate, share, and exchange ideas in both corporate and/or personal environments (as cited in Taylor & Dobbins, 2021). More broadly, social

media are digital tools used for social interaction, including social networking, SMS, and video chats (Hamilton et al., 2023). Social media is a means of communicating, collaborating, creating, modifying, and sharing content by individuals, communities, and organizations (McCay-Peet & Quan-Haase, 2017). For school leaders, these affordances extend beyond teaching and learning; they are increasingly framed as leadership and governance tools that enable transparency, communication, and professional networking (Miller et al., 2023; Yusuf et al., 2020). This shift is further evidenced by global crises, such as the Coronavirus pandemic, which have led school leaders to rely more on digital platforms for communication, coordination, and crisis management. In this context, administrators' use of social media can be understood as a micro-level educational reform that reflects changing norms of digital leadership and governance.

Over the past decades, organizations have systematically adopted social media tools to serve certain functions such as announcing, communicating, collaborating, managing knowledge, and socializing (Schlagwein & Hu, 2016). Social media may also provide an open forum for organizations to solve problems, get feedback, find new ways to interact with stakeholders, and market their services (Bankert, 2014). Social media supports an organization's capacity for exploratory learning, i.e., "understanding, recognizing and acquiring external knowledge" (Schlagwein & Hu, 2016, p. 4), and schools are no exception. Principals are therefore expected to integrate digital communication into their leadership practices to ensure responsiveness and adaptability in rapidly changing environments.

In an era of change, adaptation, and speed, it is essential for educational leaders to communicate quickly and effectively with their stakeholders. As Griffin (2014, p. 2) states, school principals "must adapt to an ever-changing world with ever-changing expectations." Social media platforms offer school leaders the opportunity to connect with their stakeholders, to disseminate essential messages and announcements, and to engage with parents and students (Cox & McLeod, 2014; Powers & Green, 2016) in ways that were not previously possible. Compared with traditional communication methods, the internet and mobile communication technologies now enhance communication and interaction with stakeholders inside and outside organizations (Korkmaz et al., 2017), regardless of time or place. For instance, school administrators may share news and information about the school in real time by posting photos from school events, sports scores, and even audio from school musicals on social media. As a communication tool, social media may connect school leaders to all stakeholders (Giordano, 2022), while it can also help stakeholders come together with school staff and administrators. Therefore, school stakeholders can participate directly in the daily life of their school.

At the same time, social media provides an avenue for professional growth. Beyond communicating with stakeholders, it offers opportunities for professional development and collaboration (Hampton, 2016), as well as a chance to learn from school leaders worldwide. Educational leaders also use social media to stay up to date on current trends and effective strategies in education, and to network with fellow educators and leaders in the field (Fancera, 2020; Ugur & Koç, 2019). Social media-based online communities offer school leaders a conducive space to openly discuss critical issues with their colleagues (Miller et al., 2023). In addition, the presence of such networks on social media may provide school leaders with broad resources for problem-solving, access to different perspectives, and helpful professional feedback (Barkley, 2012).

Overall, as school leaders work to improve their schools and support the students and families they serve, social media continues to emerge as an extremely powerful tool. Yet, it should be noted that although the use of social media can bring many benefits, it also can cause some concerns about privacy, security, and appropriate use. For example, Ugur and Koç (2019) found that Turkish principals are hesitant about using social media and need to increase their familiarity with it to implement technology more effectively in schools. Fox and Bird (2017) also state that many educators have become reluctant to use social media networks within their institutional settings or classroom due to some level of fear. Dunsmore (2021) identified several challenges that principals in New Zealand schools encounter with social media, such as issues related to digital footprints' permanence, protecting privacy, addressing the misuse of social media platforms, and safeguarding their learning organizations from potential threats.

Recent research has also examined administrators' social media practices in connection with broader constructs such as social capital. For example, Urhan et al. (2024) found that school administrators' social media use can be grouped into dimensions such as research/information, entertainment, recognition, and development, which contribute to their social capital. Such work highlights the diversity of purposes for which principals use social media, but it remains primarily descriptive. Despite this growing body of research, there is still limited evidence on the specific purposes that guide principals' social media practices, and validated instruments tailored to this population remain scarce. Existing scales often address general users or focus on psychological outcomes such as anxiety or addiction (Alkis et al., 2017; Willis et al., 2023), leaving leadership- and communication-oriented dimensions underexplored.

As discussed above, the use of social media by school administrators has become increasingly prevalent in recent years and has the potential to greatly impact the way they communicate and engage with their school community. Therefore, the purposes for which school administrators use social media, whether personal or institutional, warrant systematic

investigation. Few studies have described how school leaders have experienced using social media as an inclusive communication medium with school community members (Cox & McLeod, 2014). By understanding the purposes and benefits of social media usage among school administrators, we can gain insights into how it is being utilized to improve communication, transparency, and professional development within the education sector. Furthermore, this research can provide valuable input for comparing school leaders' different purposes for using social media. The current study is expected to contribute to the existing literature by providing a comprehensive examination of school administrators' purposes and the prevalence of social media use. The main purpose of the study was to qualitatively explore school administrators' social media use. Based on the qualitative findings, it was also intended to develop a valid and reliable scale that could be used to measure the school administrators' intention to use social media.

METHODS

This study adopted a sequential exploratory mixed-methods design (QUAL → QUAN) to develop and validate a scale measuring the purposes of school administrators' social media use. In this design, qualitative findings guided the generation of quantitative items, and subsequent quantitative analyses provided evidence of the scale's reliability and validity (Creswell & Plano Clark, 2018).

The research was conducted in two distinct phases. In Phase 1 (qualitative exploration), interviews with school administrators and analysis of their social media accounts were conducted to identify the main purposes of social media use. In Phase 2 (quantitative scale development and validation), items were developed based on the qualitative findings and validated across two independent samples. The quantitative phase of the study was divided into two independent steps: exploratory factor analysis and confirmatory factor analysis.

Phase 1: Qualitative Exploration

Participants

Semi-structured interviews were conducted with 15 school principals. The principals were selected using purposeful sampling to ensure variation in gender, years of experience, and school type.

Data Collection

Interviews lasted 30-45 minutes and focused on uncovering the purposes and motivations behind administrators' social media use. In addition, the social media accounts of five principals were analyzed to triangulate the interview findings (Lincoln & Guba, 1985) and provide further insight into their actual practices.

Data Analysis

The gathered data were analyzed using thematic analysis (Braun & Clarke, 2006). Initial codes were generated across the data set and then collated into candidate themes. Thereafter, each theme was reviewed against the coded extracts and the data set as a whole. The analysis revealed three overarching themes: announcements, professional development, and personal use. These themes provided the conceptual foundation for item generation in the subsequent quantitative phase.

Phase 2: Quantitative Scale Development and Validation

Instrument Development

Based on the qualitative findings, an initial pool of items was generated to represent the identified themes. Items were written as concise statements reflecting specific aspects of administrators' social media use. In developing the items, particular attention was paid to the expressions that were frequently repeated and commonly emphasized by participants, ensuring that the items authentically reflected their shared experiences and perspectives. To ensure content validity, the draft scale was reviewed by experts in educational administration and measurement, who provided feedback on clarity, representativeness, and relevance of the items.

Participants

The quantitative phase was conducted with two independent samples of school administrators recruited from two separate groups attending an in-service training program organized by the Turkish Ministry of National Education (MONE). The EFA sample comprised 156 school administrators (Phase 2a): predominantly male ($n = 151$, 96.8%), with 79 principals (50.6%) and 77 vice principals (49.4%), aged 23-60 years ($M = 36.19$, $SD = 6.94$), and administrative experience ranging from 1 to 23 years ($M = 5.42$, $SD = 4.57$). The CFA sample comprised 148 school administrators from a separate program (Phase 2b): 131 male (88.5%) and 17 female (11.5%), with 60 principals (40.5%) and 88 vice principals (59.5%), aged 23-58 years ($M = 36.22$, $SD = 7.17$), and administrative experience ranging from 1 to 30 years ($M = 6.09$, $SD = 6.16$). The two samples were demographically comparable across gender, age, position, and experience.

Procedure

Following a process of refinement based on the qualitative findings and expert feedback, the final version of the instrument was administered in paper-and-pencil format during the in-service training program. Participants were invited to respond to all items on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). This study was conducted in accordance with the ethical principles of the Declaration of Helsinki, and ethical approval was obtained from the institutional ethics committee of the authors' affiliated university. Prior to data collection, all participants were informed about the purpose of the study, the voluntary nature of their participation, and the confidentiality of their responses. All participants provided written informed consent before participating in the study. The administration of the questionnaire required approximately 20 minutes, and participants completed it independently and without time constraints.

Data Analysis

Analyses were conducted using SPSS 21 and AMOS 24. Data were screened for missing values and normality prior to analysis. For Phase 2a (EFA), the Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity were first examined to confirm the factorability of the correlation matrix. EFA was conducted using principal axis factoring (PAF) with direct oblimin rotation ($\delta = 0$), which is appropriate when latent factors are expected to be intercorrelated (Fabrigar et al., 1999). The number of factors to retain was determined using parallel analysis (Horn, 1965), the eigenvalue ≥ 1.00 rule, and the scree plot; all three criteria consistently supported a three-factor solution. Items with factor loadings below .40 or exhibiting problematic cross-loadings were removed iteratively. Internal consistency was assessed using Cronbach's alpha (α) and McDonald's omega (ω). For Phase 2b (CFA), a three-factor oblique model was specified in AMOS 24 using maximum likelihood estimation. Model fit was evaluated using χ^2/df , CFI, TLI, IFI, and RMSEA with 90% confidence intervals and PCLOSE. Convergent validity was examined via average variance extracted (AVE) and composite reliability (CR), and discriminant validity was tested using the Fornell–Larcker criterion.

FINDINGS

Qualitative Findings: Purposes of Social Media Use by School Principals

The qualitative phase of the study, based on in-depth interviews with 15 school principals and document analysis of selected social media accounts, revealed that school leaders engage with social media for three interrelated but distinct purposes. The most frequently expressed purpose was the dissemination of announcements and information. Principals reported that they actively use social media platforms to communicate with various stakeholders, including teaching staff, students, and parents. For staff, the posts typically included official updates such as ministry circulars, training announcements, and examination schedules, as well as informal materials like photographs from school events. When addressing parents and prospective parents, principals tended to share pedagogical information, promote school programs, showcase extracurricular activities, and communicate the school's vision and values. Posts directed at students, on the other hand, were often geared towards reinforcing moral and civic values, such as environmental awareness, patriotism, the importance of education, and healthy lifestyle choices. These posts occasionally overlapped with promotional content designed to highlight the school's achievements and facilities.

A second theme was using social media for professional development and collaboration. Principals indicated that they regularly utilized online platforms to access articles, best practices, and current educational policies, and to follow discussions or innovations in the field. They perceived social media as a space for ongoing learning and problem-solving,

where they could connect with other administrators or educators to share insights and experiences relevant to school leadership.

In addition to these professional purposes, participants also acknowledged using social media for personal reasons. Although most emphasized that their primary use was professional, they did not exclude activities such as sending private messages, commenting on friends' posts, or sharing humorous content and personal photographs. These uses reflect the blurred boundaries between personal and professional life commonly reported in literature on educational leadership in the digital age.

Quantitative Phase: Validation of the School Administrators' Social Media Use Scale (SASMUS)

A 24-item pool, representing the different purposes principals use social media for, was developed based on the initial qualitative phase of the study. To evaluate content and face validity, the initial draft of the scale was submitted to an expert panel comprising three scholars—two with expertise in educational administration and one in educational technologies. After revising the draft scale according to feedback from the expert panel, the instrument was administered to two independent samples across separate in-service training programs.

Phase 2a: Exploratory Factor Analysis (n = 156)

The KMO value of .886 and Bartlett's Test of Sphericity, $\chi^2(105) = 1681.04$, $p < .001$, confirmed the factorability of the correlation matrix. The KMO measure and Bartlett's test determine whether the items share sufficient common variance and whether inter-item correlations are strong enough to be meaningful (Watkins, 2018). Collectively, they indicate whether administrators' specific social media uses can be categorized into broader dimensions. Parallel analysis, the eigenvalue ≥ 1.00 rule, and the scree plot consistently supported a three-factor solution. Parallel analysis retains only the factors with eigenvalues exceeding those generated from random datasets of identical size. Following iterative item removal, 15 items were retained, accounting for 65.52% of the total variance. Factor loadings ranged from .488 to .926, and communalities ranged from .527 to .778. Table 1 presents the pattern matrix, communalities, and reliability estimates.

As shown in Table 1, the retained 15 items loaded cleanly on three factors with no problematic cross-loadings. Factor 1, labeled *stakeholder communication*, comprised five items (Q3, Q5, Q6, Q7, Q13) and explained 46.84% of the variance (e.g., "to make announcements to parents"). Factor 2, labeled *personal use*, comprised five items (Q19, Q20, Q21, Q26, Q28) and explained an additional 11.28% of the variance (e.g., "to send messages to my friends"). Factor 3, labeled *professional development*, comprised five items (Q16, Q17, Q18, Q29, Q33) and explained 7.40% of the variance (e.g., "to follow best practices in education"). Interfactor correlations ranged from .40 to .56 in absolute value, confirming the appropriateness of oblique rotation. Internal consistency estimates were satisfactory across all subscales (Nunnally, 1978): stakeholder communication ($\alpha = .905$, $\omega = .905$), personal use ($\alpha = .882$, $\omega = .882$), and professional development ($\alpha = .898$, $\omega = .900$). This pattern confirms the empirical distinctness of the three purposes. Stakeholder communication emerged as the dominant dimension, and the item concerning communication with other educators showed the weakest factor loading, likely reflecting its conceptual overlap between professional development and stakeholder communication.

Phase 2b: Confirmatory Factor Analysis (n = 148)

Unlike the data-driven approach of exploratory factor analysis, confirmatory factor analysis evaluates a predefined structure in an independent sample. Model fit for the proposed three-factor, 15-item model was assessed against conventional benchmarks, with CFI and TLI values $> .90$ and RMSEA $< .08$ indicating acceptable fit. The results of the CFA conducted on the three-factor model indicated that the model's fit indices were at an acceptable level: $\chi^2(86) = 137.54$, $\chi^2/df = 1.60$, CFI = .955, TLI = .945, IFI = .956, RMSEA = .064, 90% CI [.043, .083], PCLOSE = .127. All standardized factor loadings were statistically significant ($p < .001$) and ranged from .672 to .874. Evidence for convergent validity was supported by AVE values exceeding .50 for all factors: stakeholder communication (AVE = .586, CR = .875, $\omega = .875$), personal use (AVE = .596, CR = .880, $\omega = .880$), and professional development (AVE = .564, CR = .865, $\omega = .865$). Discriminant validity was confirmed via the Fornell–Larcker criterion, whereby the square root of each factor's AVE exceeded all inter-factor correlations (see Table 2 and Figure 1).

Table 1

Exploratory Factor Analysis Results of School Administrators' Social Media Use Scale (n = 156)

Items	Factor Loadings			h ²	<i>r</i>
	F1	F2	F3		
<i>F1: Communication with Stakeholders</i> ($\alpha = .905, \omega = .905$)					
Q6. to make announcements to students	.926			.778	.811
Q7. to communicate with parents	.864			.725	.809
Q5. to make announcements to parents	.785			.696	.783
Q3. to publicize student achievements	.684			.563	.706
Q13. to make announcements to teachers	.659			.561	.700
<i>F2: Personal use</i> ($\alpha = .882, \omega = .882$)					
Q21. to look at my friends' photos/comments		.894		.687	.746
Q20. to chat with friends		.850		.725	.748
Q26. to send a message to my friends		.689		.659	.744
Q28. to share my personal information/photos		.647		.595	.702
Q19. to comment on my friends' posts		.567		.527	.644
<i>F3: Professional Development & Collaboration</i> ($\alpha = .898, \omega = .900$)					
Q16. to access articles and essays on education			.880	.686	.748
Q17. to find answers to the problems I experience			.876	.732	.775
Q29. to follow current developments in education			.769	.689	.799
Q18. to follow best practices in education			.639	.622	.732
Q33. to communicate with other educators			.488	.582	.691
Eigenvalue	7.37	2.01	1.43		
Explained Variance (Total: 65.52%)	46.84	11.28	7.40		

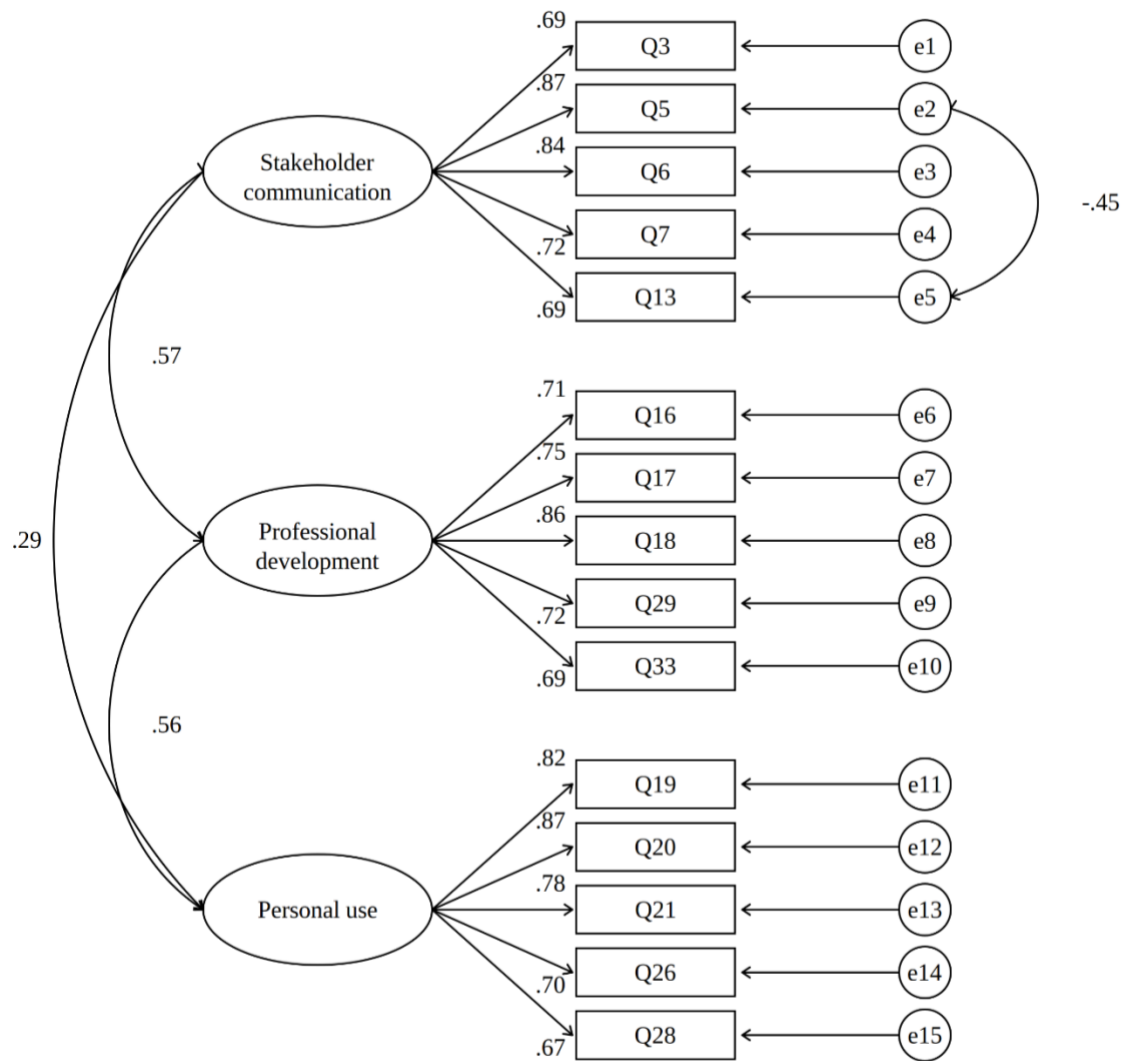
Note. $n = 156$. Principal Axis Factoring (PAF) with Direct Oblimin Rotation; factor loadings below .40 are not shown. h^2 = common variance; r = adjusted item-total correlation. Eigenvalues are initial eigenvalues, whereas the percentages of explained variance are based on the extraction sums of squared loadings.

Table 2**Confirmatory Factor Analysis: Standardized Loadings and Validity Indices for the SASMUS (n = 148)**

Items	β	SE	<i>t</i>	h^2
<i>Factor 1: Communication with Stakeholders</i> (AVE = .586, CR = .875, α = .866, ω = .875)				
Q3.	.689	—	—	.475
Q5.	.874	.155	9.31	.763
Q6.	.836	.138	9.28	.699
Q7.	.716	.134	8.05	.513
Q13.	.694	.128	7.48	.482
<i>Factor 2: Personal Use</i> (AVE = .596, CR = .880, α = .877, ω = .880)				
Q19.	.816	—	—	.666
Q20.	.871	.094	11.90	.758
Q21.	.778	.091	10.36	.605
Q26.	.705	.099	9.12	.497
Q28.	.672	.090	8.60	.452
<i>Factor 3: Professional Development & Collaboration</i> (AVE = .564, CR = .865, α = .861, ω = .865)				
Q16.	.715	—	—	.511
Q17.	.750	.129	8.49	.563
Q18.	.861	.113	9.60	.741
Q29.	.723	.111	8.20	.523
Q33.	.694	.120	7.89	.482

Note. β = standardized factor loading. AVE = average variance extracted; CR = composite reliability; ω = McDonald's omega; α = Cronbach's alpha. All loadings are significant at $p < .001$. The model includes an error covariance between Q5 and Q13 (standardized estimate = $-.451$).

As Table 2 demonstrates, the factor structure derived from the initial sample was replicated in an independent sample. All items loaded significantly onto their hypothesized factors, with Average Variance Extracted (AVE) exceeding .50 across all dimensions. Together with the discriminant validity evidence, this indicates that the three subscales can be scored and interpreted independently. This multidimensionality allows the instrument to capture distinct behavioral profiles, such as an administrator who frequently utilizes social media for stakeholder communication but rarely for professional learning.

Figure 1**Confirmatory Factor Analysis Model of the SASMUS (n = 148)**

Note. Standardized estimates are presented. All factor loadings are significant at $p < .001$. e1–e15 denote error terms.

DISCUSSION & CONCLUSIONS

This study developed and validated the SASMUS using a sequential exploratory mixed-methods design. Data analysis yielded three core dimensions of school administrators' social media use: stakeholder communication, personal use, and professional development. The present study is situated within the theoretical framework of uses and gratifications theory (Katz et al., 1973). The dimensions explored in this study reflect the purposive, active ways school leaders select and use social media to meet distinct professional and personal needs. The findings suggest that administrators do not merely passively receive technology; rather, they proactively use digital platforms for specific communicative and organizational purposes.

Social media's prominence as a communication tool was particularly evident, as school leaders reported using platforms to share announcements, celebrate student achievements, and foster school–community engagement. These findings align with previous research emphasizing the importance of social media for stakeholder communication and school promotion (Carpenter & Krutka, 2014). The qualitative insights show how broad this dominant dimension is. It spans routine

administrative tasks, such as sharing ministry circulars with staff, and strategic community building. The latter ranges from pedagogical updates for parents to civic awareness and positive behavioral norms for students. Principals do not treat social media as a generic tool. They use it as a direct extension of their institutional leadership. Showcasing school achievements is central, driving community engagement and shaping institutional image at the same time. This is also where institutional risks concentrate. These platforms are instantaneous, and any post representing the school is read as an official statement, whatever its tone. Online representation and communication ethics therefore need explicit focus in leadership preparation.

Generative AI is reshaping this landscape in two respects. These tools are now widely used by individuals and institutions alike. School principals, however, occupy a distinctive position. They use social media both to represent their institutions and to communicate in their own names. This dual role calls for two related competencies. The first is the ability to use generative tools to produce written, visual, and multimodal content for communicating with stakeholders. The second is the capacity to recognize and verify synthetic content circulating among stakeholders, since the same tools can generate material that appears authentic but is fabricated. A false post attributed to a school may spread rapidly and damage institutional credibility before the school can correct it. Leadership preparation should therefore extend beyond content production to include verification, media literacy, and safeguarding the school's authentic digital voice. The SASMUS provides a starting point for such programs, since the profile it yields indicates the purposes around which a principal's social media use is concentrated. A profile weighted towards stakeholder communication signals high institutional visibility, and visibility carries greater risk where verification skills remain underdeveloped.

Professional development emerged as a narrower, more targeted dimension. The study supports the view that school administrators increasingly engage with social media as part of their professional learning networks to access educational resources, stay informed about best practices, and collaborate with peers (Carpenter & Krutka, 2014; Trust et al., 2016). Principals treat it as a space for problem-solving and policy updates, not as a channel for daily broadcasting. This explains its moderate relationship with the other dimensions without merging into them. These networks are unbound by geographic borders, so the dimension also opens a route to international collaboration. Personal use emerged as a distinct factor, only weakly related to institutional communication. Although secondary to professional objectives, administrators acknowledged that social media also served personal and social interaction needs. This blurring of professional and personal boundaries highlights the importance of understanding digital leadership not only in terms of administrative tasks but also in relation to identity, relationships, and informal learning (Kimmons & Veletsianos, 2015). Taken together, the findings indicate that school leaders do not simply adopt social media. They compartmentalize their digital presence, balancing institutional public relations against professional networking and personal socialization. The SASMUS makes this balance visible. Because it measures purposes rather than platforms, it can trace how the balance shifts as digital environments change, and pairing it with data on platform preferences is a clear direction for future research.

The SASMUS instrument is psychometrically sound for assessing school leaders' social media use across multiple dimensions. EFA revealed a factor structure that accounted for 65.52% of the total variance. Subsequent CFA analysis on a separate sample yielded similar results, meeting the standard of goodness of fit ($\chi^2/df = 1.60$, CFI = .955, RMSEA = .064). The convergent validity of the factor structure was supported by the AVE > .50, CR > .85, and McDonald's ω > .85 for all subscales. The discriminant validity of the factor structure was substantiated by the Fornell–Larcker criterion. The study's two-phase, independent-sample validation design offers a methodological advantage when compared with the majority of extant scale development studies in educational leadership. The structural consistency across samples supports both the replicability and applied utility of the instrument.

Consequently, this study's findings have significant practical and theoretical implications. For school administrators, the recognition that social media fulfills a tripartite function, serving as a medium of communication, a professional tool, and a means of personal connection, may engender more deliberate and purposeful digital practices. The findings emphasize the importance of incorporating digital leadership competencies into professional development programs, with a particular focus on communication ethics, online institutional representation, and engagement with professional learning networks. This is particularly noteworthy for ministry officials and in-service training providers. For researchers, the SASMUS offers a validated, multidimensional instrument that can be used across different contexts to examine how social media use by school administrators is influenced by various demographic, institutional, and cultural factors.

LIMITATIONS & FUTURE RESEARCH

Although this study's findings provide valuable insights into school administrators' social media use, several limitations should be acknowledged. The two quantitative samples were drawn from a single national context and were predominantly male (96.8% and 88.5%), reflecting the gender composition of school administrators in Turkey. This imposes two

constraints on generalizability. It precludes any test of measurement invariance across gender. It also raises questions about the applicability of the scale in systems where women constitute a larger share of K–12 leadership. Because online visibility and audience management may follow gendered patterns, school leaders' purposes for using social media may also differ. Comparative applications of the SASMUS should therefore account for this limitation, particularly in contexts with a balanced or female-majority administrative workforce, and establish measurement invariance wherever possible before comparing scores across groups. The present validation was further confined to the factor structure and internal consistency of the instrument. Future studies should examine test–retest reliability alongside measurement invariance across school level and administrative role. Although the CFA results were satisfactory, replication with larger and more diverse samples would further consolidate the structural validity of the scale. Longitudinal and cross-cultural designs would also enhance understanding of how school leaders' social media use evolves over time and across educational systems.

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