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RESEARCH ARTICLE

The Relationship Between University Leadership and Faculty Exercise of Data Driven Decision Making, and the Role of Capacity Building- Saudi Empirical Evidence and Analysis

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ARTICLE INFO	ABSTRACT
 *Corresponding Author: sami.alsulami@iu.edu.sa	The increasing emphasis on evidence-based governance has heightened the importance of data-driven decision making in higher education institutions. However, limited empirical research has examined how institutional and individual factors jointly shape faculty engagement with data-informed practices. This study investigates the relationships among institutional support, data literacy, data access, faculty capacity building, and data-driven decision making in higher education. Using a quantitative survey design, data were collected from 411 faculty members in higher education institutions. Hierarchical multiple regression analyses were employed to examine direct effects and to test the mediating role of faculty capacity building. The findings reveal that institutional support, data literacy, and data access significantly predict faculty data-driven decision making. Moreover, faculty capacity building partially mediates the relationships between institutional factors and data-driven decision making, indicating that leadership and organizational support exert both direct and indirect effects through professional development mechanisms. The results underscore that data-driven decision making is not solely a technical competency but a systemic outcome shaped by leadership culture, institutional infrastructure, and sustained capacity-building efforts. The study contributes to the literature by empirically validating an integrated model that highlights faculty capacity building as a critical mechanism linking institutional support to effective data use. From a practical perspective, the findings suggest that higher education leaders should adopt holistic strategies that combine leadership commitment, investment in data infrastructure, and continuous faculty development to strengthen evidence-based decision making and institutional sustainability.

INTRODUCTION

Faculty data-driven decision-making can be defined as the systematic use of data to inform teaching practices, resource allocation, and strategic planning in education (Nisa & Kurniawati, 2024; Kaspi & Venkatraman, 2023; Marsh, Pane, & Hamilton, 2006). In higher education, faculty members are increasingly expected to make use of data they gain access to so as to improve student learning, assess program outcomes, and support institutional effectiveness (Lee & Lee, 2025; Means et al., 2010). While faculty are often supportive of using data to enhance teaching and learning, the extent to which faculty tend to exercise data-driven decision making varies widely depending on aspects including data literacy, university leadership and culture, and access to actionable data (Salajegheh et al., 2024; Slavit, Nelson, & Deuel, 2013). In this respect, Mandinach and Gummer (2016) further highlight that faculty exercise of data-driven decision making may be further contingent on availability of time and training, the extent to which data can be accommodated within pedagogical strategies, and overall concerns about data quality and misinterpretation. Sun (2012) also mentions faculty confidence in using institutional data systems as a critical factor governing faculty exercise of data-driven decision making. Nonetheless, the extant literature still strongly supports that when faculty receive training and support, they are more likely to integrate data into instructional planning and curriculum design (Schildkamp & Kuiper, 2010). Empirical evidence suggests that

effective faculty exercise of data-driven decision making may lead to more targeted interventions, improved student retention, and better alignment with learning outcomes (Marsh et al., 2006). However, the success of such exercise often hinges on university leadership support and a culture of inquiry, capacity building, and continuous education (Datnow & Hubbard, 2015).

In view of the preceding, the objective of this study is to examine the impact of university leadership on faculty exercise of data driven decision making. The study sample comprises a total of 411 faculty members randomly selected at the university of Madina. The study sample size is determined based on Cohen's (1988) criterion for large populations with maximum statistical distribution proportion of 50% and threshold for statistical effect of 5%. The study employs the data literacy theoretical framework of Mandinach and Gummer (2016), and allows for the relationship between university leadership and faculty exercise of data driven decision making to be mediated by faculty capacity building. The study thus contributes to the literature by documenting Saudi evidence on the subject. Although the extant literature highlights the link between university leadership and faculty data use (see, e.g., Wayman & Jimerson, 2014), there is limited empirical research examining this relationship in Saudi Arabia. Investigating this dynamic will inform both local policy and the broader discourse on effective leadership in emerging higher education systems. In this fashion, the study advances the following two main research questions:

RQ1: What is the impact of university leadership of faculty exercise of data driven decision making?

RQ2: What is the extent to which faculty capacity building mediates the impact of university leadership of faculty exercise of data driven decision making?

To answer the research questions above, this study estimates a model with a mediating mechanism where the endogenous faculty exercise of data-driven decision making is specified in terms of the exogenous university leadership, faculty data literacy, and faculty access to relevant data. Such model is instructed by theoretical framework of Mandinach and Gummer (2016).

The remainder of the paper is presented following a typical quantitative study in terms of literature review and hypotheses development, empirical study, and concluding remarks.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

This literature review section to the study develops the alternative research hypotheses pertaining to the endogenous faculty exercise of data-driven decision making in four sections: university leadership, faculty data literacy, faculty access to data, and capacity building.

University leadership

Faculty exercise of data-driven decision-making is essential for enhancing instructional quality, student performance, and institutional accountability (Mandinach & Gummer, 2016). However, the effectiveness of faculty exercise of data-driven decision making is often shaped by university leadership, which constitutes a solid base for setting expectations, providing resources, and cultivating a data-informed culture (Decabooter et al., 2024). University leadership is thus instrumental in creating a data-rich environment where faculty feel empowered and supported to use data in their teaching and research practices (Alonzo et al., 2024). In this respect, Schildkamp and Lai (2013) contend that university leadership that promotes a shared vision, transparency, and collaboration increases faculty willingness to engage in data use. Datnow and Park (2014) report that university leadership that models' data use itself further contributes to a culture of continuous improvement among faculty and staff. Toward this end, one of the key mechanisms through which leadership affects faculty exercise of data-driven decision making is through capacity building, where effective leaders provide training, allocate time for data analysis, and ensure access to user-friendly systems (Marsh et al., 2006). For instance, Kerr et al. (2006) document that without leadership-driven support for professional learning communities and data literacy development, faculty are less likely to interpret and apply data meaningfully. Furthermore, university leadership also influences faculty exercise of data-driven decision making by aligning institutional goals, strategic planning, and accreditation activities with faculty performance metrics (Sun et al., 2016). However, overly top-down approaches may generate resistance if faculty perceive data mandates as punitive or disconnected from academic values (Datnow & Hubbard, 2015). By the same token, trust between faculty and administration is equally as essential. Indeed, university leadership that

promotes autonomous participation in decision-making and respect for academic freedom is more successful in fostering authentic faculty engagement with relevant data available and resulting in faculty embracing data-driven decision making as a tool for improvement rather than surveillance (Jimerson & Wayman, 2012).

In view of the preceding, the following research hypothesis may be stated in the alternative form:

Ha (1): the impact of university leadership on faculty exercise of data-driven decision making is positive.

Faculty data literacy

Faculty members' ability to engage meaningfully in data-driven decision making is significantly influenced by their level of data literacy defined as the capacity to access, analyze, interpret, and apply data effectively in their academic roles (Abakah, 2023; Mandinach & Gummer, 2013). Data literacy for faculty involves not just technical skills but also the interpretive and critical thinking capacities needed to turn raw data into actionable insights (Asterhan & Lefstein, 2024; Gummer & Mandinach, 2015). This includes understanding data sources, recognizing limitations, and using findings to inform instructional or research decisions (Lee & Lee, 2024). Faculty with higher data literacy are thus more likely to incorporate student performance data, assessment outcomes, and institutional analytics into curriculum planning and instructional improvement (Schildkamp & Kuiper, 2010). Conversely, low levels of data literacy are often associated with hesitancy, misinterpretation, or altogether underutilization of available data tools and platforms (Slavit et al., 2013). On this subject, the extant literature indicates that targeted professional development in data use can significantly increase faculty confidence and competence in data-driven decision making (Mandinach et al., 2015). Data literacy, however, is not innate as it is usually developed through structured training, mentoring, and practical engagement with real institutional datasets (Means et al., 2010). Despite its importance, data literacy is not evenly distributed across institutions or disciplines (Aburizaizah, 2021). For instance, faculty in STEM fields may feel more comfortable with quantitative data, while others may lack training or feel disconnected from institutional analytics systems (Jimerson & Wayman, 2012).

In view of the preceding, the following research hypothesis may be stated in the alternative form:

Ha (2): the impact of faculty data literacy on faculty exercise of data-driven decision making is positive.

Faculty access to relevant data

Without timely, relevant, and user-friendly access to data, faculty may struggle to make informed decisions, regardless of their data literacy levels (Mandinach & Gummer, 2016). Access to institutional data, such as student performance, engagement metrics, and course evaluations, enables faculty to align teaching practices with learning needs (Mandinach & Gummer, 2016). Wayman et al. (2009) argue that simply having data systems in place is not enough; data must be accessible in formats that are interpretable and actionable. When data is siloed or delayed, faculty may disengage from its use entirely (Shealy et al., 2019). In fact, modern learning management systems and institutional dashboards can support real-time data access, but they must be aligned with faculty workflows (Datnow & Park, 2014). Faculty are thus more likely to use data when systems are user-friendly, decentralized, and provide custom reports relevant to their academic goals (Ikemoto & Marsh, 2007). Faculty access to data also involves organizational openness that faculty often report that restricted access to meaningful data, due to institutional gatekeeping or unclear data policies, often reduces their trust in the data system and their motivation to use it (Hecht et al., 2023; Jimerson & Wayman, 2012). Moreover, inequities in access between departments, seniority levels, or types of contracts can greatly limit the broader adoption of data-driven decision making (Guraya & Chen, 2019). For example, adjunct or part-time faculty may lack the same access to data platforms or training as full-time staff, limiting their participation in institutional improvement efforts (Means et al., 2010).

In view of the preceding, the following research hypothesis may be stated in the alternative form:

Ha (3): the impact of faculty access to data on faculty exercise of data-driven decision making is positive.

Capacity building

Faculty capacity building refers to the continuous development of faculty competencies in teaching, research, service, and innovation (Datnow & Park, 2014). This comprises formal training, access to technology, peer collaboration, and ongoing professional development (Johnston et al., 2019). In higher education, university leadership plays a critical role in fostering an environment that supports faculty growth and performance (Knight et al., 2006). University leadership thus determines the strategic priorities, resource allocation, and professional development opportunities that shape the academic workforce (Kohan et al., 2023). Effective university leaders provide a clear and shared vision for faculty development, aligning institutional goals with individual faculty needs (Bolden et al., 2012). University leadership that promotes innovation, research excellence, and teaching quality creates a foundation for continuous capacity enhancement (Johnston et al., 2019). According to Bryman (2007), transformational leadership practices, such as inspiring commitment and enabling autonomy, are positively associated with faculty development outcomes. Furthermore, university leaders influence faculty capacity through the creation of support systems, such as mentorship programs, teaching and learning centers, and research grants (Kohan et al., 2023). Studies show that when leadership invests in structured development initiatives, faculty are more likely to engage in professional growth (Gappa et al., 2007). Additionally, transparent policies on promotion and evaluation encourage participation in capacity-building efforts. Moreover, the culture established by university leadership, whether collaborative or hierarchical, impacts how faculty perceive development opportunities (Marynowski et al., 2022). In this vein, Kezar and Lester (2009) argue that shared governance and inclusive decision-making foster a sense of ownership and agency among faculty, which in turn promotes active engagement in their own capacity building. Despite these positive associations, barriers remain. Limited budgets, lack of alignment between leadership goals and faculty needs, and inconsistent communication can hinder capacity-building efforts (Nguyen, 2013). Most importantly, leadership approaches that focus solely on metrics or compliance may stifle creativity and intrinsic motivation among faculty. Nonetheless, the role of leadership in facilitating capacity building can hardly be overstated. Wayman and Jimerson (2014) emphasize that strong leadership fosters a culture of continuous improvement and provides the necessary infrastructure, data systems, time, and incentives for faculty to meaningfully exercise data-driven decision making. As universities increasingly rely on data to inform instructional strategies, resource allocation, and student success initiatives, faculty must be supported through targeted development efforts (Mandinach & Gummer, 2016). Along these lines, the extant literature shows that without intentional capacity building, faculty may lack the ability or confidence to effectively use data. Mandinach and Gummer (2013) report that data literacy alone is insufficient as faculty also need organizational support structures, such as learning communities and mentoring, to develop DDDM competence. When faculty participate in data-focused capacity-building programs, their use of data in classroom and administrative decisions improves significantly (Marsh et al., 2006). Despite the importance of faculty capacity building, however, challenges seem to persist. Faculty often cite a lack of time, limited access to usable data, and insufficient training as key obstacles (Farrell & Marsh, 2016). Additionally, capacity-building initiatives are expected to be context-specific, considering disciplinary needs and varying levels of data familiarity across faculty members (Marynowski et al., 2022).

In view of the preceding, the following research hypothesis may be stated in the alternative form given that faculty capacity building tends to be influenced by university leadership meanwhile influencing faculty data-driven decision making.

Ha (4): faculty capacity building mediated the impact of university leadership faculty exercise of data-driven decision making.

Empirical study

To answer its research questions above, the study estimates the following model where DD is a measure of faculty data driven decision making, UL is a measure of university leadership, DL is a measure of faculty data literacy, DA is a measure of faculty access to data, e is a well-behaved error term, b0 is an intercept term, and b1 to b3 are parameter estimates.

DD = f (UL, DL, DA)

DD = b0 + b1*UL + b2*DL + b3*DA + e.

The measurements for DD, UL, DL, and DA above are all consistent with the validated data collection instrument developed in (Mandinach & Gummer, 2016) (table 1). DD is coded on a binary basis as 1 when the total score of the respondent equals to or above the mean value of 9, and zero otherwise. DL is coded on a binary basis as 1 when the total score of the respondent equals to or above the mean value of 9, and zero otherwise. UL is coded on a binary basis as 1 when the total score of the respondent equals to or above the mean value of 18, and zero otherwise.

Table 1. Data collection instrument adapted from Mandinach and gummer (2016)

Dimension	Items
Data Use in Practice (DD)	1. I use student performance data to inform my teaching decisions. 2. I analyze data to identify students at risk. 3. I regularly refer to institutional reports for planning my academic activities.
Data Literacy (DL)	4. I feel confident in interpreting assessment data. 5. I can effectively use data visualization tools (e.g., dashboards, graphs). 6. I understand how to apply data to improve student outcomes.
Institutional Support, Culture, and Attitudes (UL)	7. My institution provides sufficient access to data tools and systems. 8. I receive adequate training on how to use data for decision-making. 9. There is a clear policy encouraging data use among faculty. 10. My colleagues value using data to guide decisions. 11. Leadership encourages data-informed decision-making. 12. I believe data use improves academic performance.

Note. DD = Data use in practice; DL = Data literacy; UL = Institutional support, culture, and attitudes. Items were adapted from Mandinach and Gummer's (2016) data literacy framework. Responses were measured using a Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Table 2. **Multiple regression analysis predicting data use in practice (DD) from institutional support (UL), Data Literacy (DL), and Data Access (DA)**

Predictor	B	SE	t	p	95% CI [LL, UL]
Intercept	0.20	0.04	4.74	< .001	[0.11, 0.28]
UL	0.25	0.04	5.65	< .001	[0.17, 0.34]
DL	0.24	0.05	5.22	< .001	[0.15, 0.32]
DA	0.20	0.04	4.50	< .001	[0.11, 0.29]

Model Summary. R = .45, R^2 = .21, Adjusted R^2 = .20, *F* (3, 407) = 35.12, *p* < .001, *N* = 411.

Note. DD = Data use in practice; UL = Institutional support, culture, and attitudes; DL = Data literacy; DA = Data access. B = unstandardized regression coefficient; SE = standard error; CI = confidence interval. The regression model examines the functional relationship DD = *f* (UL, DL, DA). All predictors were statistically significant at the .001 level

The study results (Table 2) are consistent with theoretical predictions and show that faculty data-driven decision making is significantly explained in this study in terms of university leadership, faculty data literacy, and faculty access to data. Most importantly, the results show that university leadership tends to explain faculty data-driven decision making the most with a parameter estimate of more than 25%, and this is followed by faculty data literacy, and then faculty access to data. This suggests that faculty surveyed in this study who tend to associate positively with university leadership are significantly more than 23% likely to engage in data-driven decision making.

To answer RQ2, the study estimates the following model with mediating mechanism to measure and test the extent to which faculty capacity building is influenced by university leadership while meanwhile influencing faculty data-driven decision making, where BC is a Likert-type scale measure of faculty capacity building consistent with the validated data collection instrument reported in the professional development survey of Guskey (2002) (table 3). BC is coded on a binary basis as 1 when the total score of the respondent equals to or above the mean value of 36, and zero otherwise.

BC = f (UL): BC = b0 + b1*UL + e.

DD = f (BC): DD = b0 + b1*BC + e.

Table 3. Faculty capacity building Self-Assessment scale

Dimension	Items
Knowledge and Skills Development	1. I have access to professional development opportunities relevant to my role. 2. I have gained new knowledge or skills through recent training programs. 3. I am confident in applying new teaching strategies learned from workshops.
Support and Resources	4. My institution provides adequate resources for continuous learning. 5. I have access to mentors or experienced colleagues for professional advice. 6. I am encouraged to participate in scholarly or research activities.
Institutional Environment	7. Leadership supports my professional growth. 8. There is a clear institutional strategy for faculty development. 9. Capacity-building efforts are aligned with institutional goals.
Application and Outcomes	10. I apply what I learn from capacity-building activities in my teaching or research. 11. My professional development has improved student learning outcomes. 12. I am more confident in participating in institutional decision-making processes.

Note. Items measure faculty perceptions of capacity-building practices across four dimensions. Responses were recorded on a Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Higher scores indicate stronger perceived faculty capacity building

Table 4. Simple regression analysis predicting faculty capacity building (BC) from institutional support (UL): Step 1 (RQ3)

Predictor	B	SE	t	p	95% CI [LL, UL]
Intercept	0.42	0.04	11.64	< .001	[0.35, 0.49]
UL	0.17	0.05	3.52	< .001	[0.08, 0.27]

Model Summary. $R = .17$, $R^2 = .03$, Adjusted $R^2 = .03$, $F(1, 409) = 12.41$, $p < .001$, $N = 411$

Note. BC = Faculty capacity building; UL = Institutional support, culture, and attitudes. B = unstandardized regression coefficient; SE = standard error; CI = confidence interval. Step 1 of the hierarchical regression tested the functional relationship BC = f(UL)

Table 5. Simple regression analysis predicting faculty data-driven decision making (DD) from faculty capacity building (BC): Step 2 (RQ2)

Predictor	B	SE	t	p	95% CI [LL, UL]
Intercept	0.42	0.03	12.32	< .001	[0.35, 0.48]
BC	0.26	0.05	5.55	< .001	[0.17, 0.36]

Model Summary. $R = .26$, $R^2 = .07$, Adjusted $R^2 = .07$, $F(1, 409) = 30.75$, $p < .001$, $N = 411$

Note. DD = Faculty data-driven decision making; BC = Faculty capacity building. B = unstandardized regression coefficient; SE = standard error; CI = confidence interval. Step 2 of the mediation analysis tested the functional relationship DD = f(BC)

Table 6. Multiple regression analysis predicting faculty data-driven decision making (dd) from institutional support (UL), Data Literacy (DL), Data Access (DA), and faculty capacity building (BC): full mediation model (RQ2)

Predictor	B	SE	t	p	95% CI [LL, UL]
Intercept	0.12	0.04	2.75	0.006	[0.03, 0.21]
UL	0.22	0.04	5	< .001	[0.14, 0.31]
DL	0.23	0.04	5.13	< .001	[0.14, 0.31]
DA	0.19	0.04	4.45	< .001	[0.11, 0.28]
BC	0.20	0.04	4.49	< .001	[0.11, 0.28]

Model Summary. $R = .49$, $R^2 = .24$, Adjusted $R^2 = .24$, $F(4, 406) = 32.62$, $p < .001$, $N = 411$

Note. DD = Faculty data-driven decision making; UL = Institutional support, culture, and attitudes; DL = Data literacy; DA = Data access; BC = Faculty capacity building. B = unstandardized regression coefficient; SE = standard error; CI = confidence interval. This regression tests the full mediation model where BC mediates the effects of UL, DL, and DA on DD

As shown in (table 4) and (table 5) above, the results of this study establish that faculty capacity building tends to significantly mediate the relationship between university leadership and faculty data-driven decision making. However, as shown in (table 6) the full mediation criterion for faculty capacity building couldn't be reported due to the statistical significance of university leadership in

an explanatory model of faculty data-driven decision making where faculty capacity building is also included as an exogenous variable.

Limitations and Implications

Limitations

Despite the contributions of this study, several limitations should be acknowledged. First, the study employed a cross-sectional survey research design, which restricts the ability to make strong causal inferences regarding the relationships among institutional support, faculty capacity building, and data-driven decision making. Although mediation was tested statistically, cross-sectional designs are limited in establishing temporal precedence among variables (Maxwell et al., 2011; Spector, 2019). Future research using longitudinal or experimental designs would provide stronger evidence of causal mechanisms.

Second, the study relied on self-reported data, which may be susceptible to common method bias and social desirability effects. While procedural remedies such as anonymity and validated instruments were applied, self-perceptions may not fully reflect actual data-use behaviors. This limitation is common in behavioral and organizational research and may inflate observed relationships among variables (Podsakoff et al., 2003).

Third, the empirical data were drawn from a single national higher education context, which may limit the generalizability of the findings to other institutional or cultural settings. Although the Saudi higher education system represents an important and underexamined context, caution should be exercised when extending the results to universities operating under different governance structures or policy environments (Creswell & Creswell, 2018). Future comparative or multi-country studies could enhance external validity.

Finally, some variables were dichotomized for analytical purposes, which may have reduced statistical power and obscured variability in faculty perceptions. Prior methodological research has shown that dichotomization can lead to information loss and biased parameter estimates (MacCallum et al., 2002). Future studies are encouraged to retain continuous measures or apply latent variable modeling techniques to capture more nuanced relationships.

Implications for Policy, Leadership, and Practice

Despite these limitations, the findings offer important implications for higher education leadership and policy. The results highlight the central role of institutional leadership in promoting data-driven decision making among faculty members, both directly and indirectly through capacity-building mechanisms. This finding aligns with prior research emphasizing that leadership support and organizational culture are critical drivers of effective data use in educational settings (Mandinach & Gummer, 2016).

The mediating role of faculty capacity building suggests that leadership initiatives alone are insufficient unless accompanied by sustained professional development opportunities. Universities should therefore invest in structured, ongoing training programs that strengthen faculty data literacy, analytical competencies, and practical data application skills. Such initiatives should move beyond isolated workshops and be embedded within broader institutional strategies for academic development and quality assurance.

At the policy level, the results indicate that aligning capacity-building efforts with institutional strategic goals can enhance the effectiveness of data-informed governance. In centralized higher education systems, leadership-driven policies, incentives, and accountability mechanisms may play a particularly influential role in institutionalizing evidence-based decision making across academic units.

Finally, the study underscores the importance of adopting a holistic approach that integrates leadership support, faculty development, and organizational culture as complementary elements. By addressing these dimensions collectively, higher education institutions can strengthen institutional sustainability and improve decision-making quality in teaching, research, and administrative practices.

CONCLUSION

This study examined the relationships among institutional support, data literacy, data access, faculty capacity building, and data-driven decision making within the context of higher education. The findings provide empirical evidence that institutional support, data literacy, and data access significantly influence faculty data-driven decision making, both directly and indirectly through faculty capacity building. In particular, the mediation analysis demonstrates that faculty capacity building serves as a critical mechanism through which leadership and institutional conditions translate into effective data use practices.

By empirically validating these relationships, the study extends prior research on data literacy and educational leadership by offering a context-specific model that integrates organizational, individual, and developmental factors. The results support the argument that data-driven decision making in higher education is not solely a technical competence but a systemic outcome shaped by leadership culture, institutional infrastructure, and sustained professional development. This contribution is especially relevant for higher education systems undergoing rapid transformation and increased accountability demands.

From a practical perspective, the findings suggest that universities seeking to enhance evidence-based decision making should adopt a holistic strategy that combines leadership commitment, investment in data infrastructure, and continuous faculty capacity-building initiatives. Leadership-driven policies that promote access to data, encourage analytical skill development, and embed data use within academic routines are likely to yield more sustainable improvements than isolated interventions. Faculty capacity building emerges not merely as a supporting factor, but as a strategic lever for institutional sustainability and academic effectiveness.

Despite its contributions, the study acknowledges limitations related to research design, self-reported measures, and contextual scope, which constrain causal interpretation and generalizability. These limitations point to important directions for future research, including longitudinal designs, multi-source data collection, and cross-national comparative studies.

Addressing these gaps will further refine understanding of how leadership and capacity-building processes interact to support data-informed governance in higher education.

In conclusion, this study reinforces the importance of integrating leadership, faculty development, and organizational culture to advance data-driven decision making. By demonstrating the mediating role of faculty capacity building, the research offers both theoretical insight and actionable guidance for policymakers and institutional leaders aiming to strengthen decision-making quality and long-term institutional sustainability.

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