

Research Article

# Principals and External Stakeholders: The Influence of Personal, Organizational and Environmental Characteristics

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## Abstract

This study investigates the relationships between school principals and external stakeholders in Israel's southern district, focusing on the impact of personal, organizational, and environmental characteristics on connections, assistance, satisfaction, and initiative. Israel's educational landscape is marked by significant socioeconomic, cultural, and geographical diversity, presenting unique challenges and opportunities for school leaders in fostering stakeholder engagement. Using a quantitative research design, 80 principals from elementary and secondary schools participated in a two-part survey. The first section assessed personal, organizational, and environmental characteristics, while the second used four sub-questionnaires to evaluate interactions with 48 external stakeholders. These stakeholders were categorized into formal (e.g., school superintendents), informal (e.g., parents, community organizations), and business entities, and responses were rated on an 8-point Likert scale. Findings show that formal stakeholders, such as school superintendents, have the strongest connections with principals, followed by informal stakeholders and business entities. Female principals reported stronger formal connections, whereas male principals demonstrated greater initiative in engaging business stakeholders. Jewish principals showed stronger business connections than their Arab counterparts. Additionally, school size and socioeconomic status were positively associated with formal and business connections, with autonomous schools showing greater business engagement. Management training and socioeconomic status emerged as the most significant predictors of business initiative. The study highlights the need for targeted efforts to enhance stakeholder engagement in economically disadvantaged areas, particularly in strengthening business relationships and supporting Arab principals. Leadership development and organizational support are critical for fostering effective partnerships tailored to the diverse needs of schools in this region. While the findings provide valuable insights, the study is limited by its geographic focus on southern Israel and the reliance on self-reported data, which may introduce bias. Future research should include additional regions, such as central and northern Israel, and incorporate diverse methodologies to broaden understanding and improve generalizability. This research contributes to the limited literature on principal-stakeholder dynamics in Israel, offering insights into the interplay of personal, organizational, and environmental factors. It underscores the importance of tailored leadership strategies to address the challenges of stakeholder engagement in diverse and resource-constrained educational contexts.

## Keywords

School Principals, External Stakeholders, Educational Engagement, Personal Characteristics, Organizational Characteristics, Environmental Characteristics

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**Received:** 18 December 2024; **Accepted:** 2 January 2025; **Published:** 10 February 2025



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## 1. Introduction

In today's evolving educational landscape, the role of school principals has transcended its traditional administrative boundaries to encompass broader, more complex responsibilities. Principals are no longer solely focused on managing internal school operations; they are increasingly expected to engage with *external stakeholders*, a diverse group that includes parents, government agencies, community organizations, and businesses. These external actors play a vital role in the success and performance of schools by contributing resources, legitimacy, and support to enhance school functioning [27, 30]. This growing expectation for principals to act as boundary spanners highlights the necessity of navigating complex social, financial, and political landscapes, which is crucial not only for academic improvement, but also for securing funding and fostering holistic educational outcomes [31].

The success of principals in engaging with external stakeholders is not uniform and depends on several *personal, organizational, and environmental* factors. Personal characteristics such as gender, managerial experience, and leadership style significantly influence the nature and effectiveness of their interactions with stakeholders. For instance, prior research indicates that female principals may foster stronger formal connections, while male principals might exhibit greater initiative in business-related engagements [33]. Organizational factors, including the type of school, its size, and its religious affiliation, further shape these interactions. Environmental factors, such as the *socioeconomic status (SES)* of the surrounding community, present unique challenges and opportunities for principals to engage stakeholders effectively [13].

In Israel, the educational system is marked by regional, cultural, and socioeconomic diversity, which adds further complexity to principal-stakeholder dynamics. This is particularly evident in the *Southern District*, a region characterized by wide-ranging socioeconomic disparities, including underserved Bedouin communities, mixed Jewish and Arab populations, and rural areas with limited resources. Principals in this region face distinct challenges related to stakeholder engagement, including the need to build partnerships in economically disadvantaged contexts, address cultural and religious divides, and work within a landscape influenced by ongoing geopolitical tensions. Despite the global focus on school leadership, there is a significant gap in understanding how these factors play out in specific regional contexts like the Southern District of Israel. This study aims to fill this gap by offering insights into how personal, organizational, and environmental factors interact to shape principal-stakeholder relationships in this unique setting.

To better understand these dynamics, this study addressed the following key questions:

1. What are the personal, organizational, and environ-

mental factors that influence school principals' engagement with external stakeholders in the Southern District of Israel?

2. How do these factors impact the types of assistance provided by stakeholders, the satisfaction principals derive from these relationships, and their initiative in fostering such partnerships?
3. How can theoretical and practical insights from these findings guide policies and practices aimed at enhancing principal-stakeholder engagement in diverse educational contexts?

To address these questions, the study employed a quantitative research design, surveying 80 principals from elementary and secondary schools across the Southern District. The study used a two-part questionnaire to collect data: one part assessed personal, organizational, and environmental characteristics, while the second part focused on stakeholder engagement, measuring aspects such as the scope of connections, types of assistance, satisfaction, and initiative through a structured Likert scale. By employing hierarchical regression analysis, the study aimed to uncover the relationships between these variables and offer actionable insights.

This study provides both theoretical contributions and practical insights for policymakers and educational leaders. The findings have implications for leadership development programs, particularly in economically disadvantaged and culturally diverse areas. By offering a detailed examination of how various factors influence external stakeholder engagement, the study provides a framework for improving principal-stakeholder dynamics in schools facing socioeconomic challenges. Expanding on the regional context of Israel, this research addresses a gap in the literature by examining principal leadership within a specific, culturally diverse, and economically complex environment.

Following this introduction, the literature review critically examines existing research on the dynamics of school principal engagement with stakeholders, highlights recent developments, and identifies gaps that require further investigation. The methodology section outlines the research framework, detailing the data collection and analysis methods used to ensure a robust and transparent approach. The findings chapter presents key insights that are discussed in relation to the relevant literature. Finally, the conclusion offers practical recommendations for policymakers and practitioners and proposes directions for future research to deepen our understanding of how personal, organizational, and environmental factors shape effective stakeholder engagement in schools.

## 2. Literature Review

School principals play a pivotal role in shaping educational

environments and their responsibilities have expanded beyond internal management to include active engagement with external stakeholders. These stakeholders' parents, community organizations, local governments, businesses, and non-governmental organizations are critical to improving school effectiveness, especially in today's complex and interconnected educational landscape [22]. In various global contexts, from the United States to Europe and Asia, principals are increasingly viewed as boundary spanners who not only manage their schools but also engage with diverse external entities to secure resources and foster educational success [34]. In Israel, the role of principals is further complicated by the country's unique sociocultural and geopolitical context, which creates a distinct set of challenges and opportunities in stakeholder engagement.

### 2.1. The Role of Principals as Boundary Spanners

A principal's ability to link their school with external stakeholders is essential for mobilizing resources and support. Studies from Europe [28] emphasize that in resource-constrained environments, principals must actively engage with community organizations, local businesses, and government bodies to secure additional support for their schools. Research in Israel reflects similar findings, particularly in under-resourced areas like the southern district, where principals often rely on external partnerships to fill gaps in government funding [21]. This role is particularly significant in ultra-Orthodox (Haredi) and Arab-majority schools, where cultural, religious, and political factors further influence stakeholder dynamics [17].

In Finland and Singapore, schools with strong community ties have reported higher levels of student engagement and academic achievement, underscoring the importance of external partnerships [34]. Similarly, in Israel, schools that engage with external stakeholders such as local businesses and NGOs are better positioned to provide after-school programs, vocational training, and technological resources—critical components in addressing educational disparities [21].

### 2.2. Effective Communication and Collaboration

Effective communication between school leaders and external stakeholders is crucial for fostering mutual trust and shared responsibility [14]. Bryk and Schneider [10] argue that trust forms the foundation of productive relationships between schools and external entities. This notion is supported by research from the United States and the United Kingdom, where schools with strong stakeholder networks reported improved student outcomes, including higher achievement, better attendance, and enhanced social-emotional development [32].

In Israel, particularly in regions affected by geopolitical conflicts, such as the southern district, principals have had to build crisis management strategies that rely heavily on external partnerships. These partnerships include collaboration with local governments, security agencies, and psychological support services, which help ensure the safety and well-being of students and staff during security threats [1]. For example, schools in Negev have developed close ties with municipal authorities and the Home Front Command to create secure environments and provide psychological support for students affected by trauma.

### 2.3. Leadership Styles and Stakeholder Engagement

Leadership style plays a significant role in how principals engage with external stakeholders. Transformational leadership, which involves inspiring and motivating staff and stakeholders to pursue a shared vision, has been shown to foster strong community partnerships [23]. This style is particularly effective in countries like the United States, where principals who adopt transformational leadership are better able to mobilize community resources and build long-term partnerships [22]. In Israel, transformational leadership is equally critical, especially in schools serving disadvantaged communities, where external partnerships are necessary to provide essential services [21, 23].

However, other leadership styles also play a role. Transactional leadership, which focuses on structure, compliance, and rewards, may not foster deep external engagement, but provides stability in interactions with formal stakeholders, such as government bodies [16]. In Israel, where principals must navigate complex relationships with the Ministry of Education, transactional leadership can be useful for maintaining compliance with educational policies, while simultaneously pursuing external resources [20]. Distributed leadership, which involves delegating leadership responsibilities to multiple individuals within a school, is also gaining traction globally [24]. In countries like South Africa, this model has been effective in fostering broader community involvement and empowering stakeholders at various levels of the educational system [2, 31].

### 2.4. Emotional Intelligence in Leadership

Emotional intelligence (EQ) is another crucial factor influencing a principal's ability to engage with external stakeholders. In the United States and the United Kingdom, principals with high levels of EQ have been shown to excel in managing stakeholder relationships, especially in conflict resolution and collaboration [9]. Research in Israel suggests that principals with high EQ are better equipped to handle the complex dynamics of multicultural stakeholder engagement, particularly in Arab-majority and ultra-Orthodox schools where cultural sensitivities play a significant role [18].

## 2.5. Organizational Characteristics and External Engagement

School size and resources significantly influence principals' capacity to engage with external stakeholders. Larger schools with greater administrative capacity and financial resources are often better positioned to cultivate a wide range of external partnerships. For example, in the United States, Marzano, Waters, and McNulty [25] highlight how well-resourced schools are more likely to attract external support through programs like after-school activities and professional development initiatives. Conversely, smaller schools, especially in rural or economically disadvantaged areas, often lack the capacity to engage with external stakeholders to the same extent [15].

In Israel, schools in wealthier regions, such as Tel Aviv, have greater access to external resources and partnerships compared to schools in poorer or more rural areas like the Negev or Arab-majority towns [21]. Principals in these under-resourced areas must be particularly resourceful, often relying on NGOs and philanthropic organizations to provide services, such as technological access or vocational training.

## 2.6. Environmental and Contextual Factors

The geographical location and socioeconomic status (SES) of a school's community also significantly impact stakeholder engagement. In urban areas, principals often have access to a wider network of potential stakeholders, including businesses, NGOs, and government agencies [29]. However, in rural or isolated communities, such as those in the southern district of Israel, principals face challenges in securing external resources due to geographical isolation and limited access to stakeholders [21]. In these contexts, informal community partnerships become more critical, though they may lack the financial and logistical support found in more urbanized regions [16].

Additionally, the SES of a school's community plays a critical role in shaping the nature of principal-stakeholder relationships. Schools in low-SES areas often face significant resource shortages, requiring principals to work harder to engage external stakeholders, who can provide financial support or educational resources [16]. In Israel, schools in disadvantaged regions, such as those serving Bedouin communities in Negev, must rely heavily on external partnerships to address educational disparities [1].

## 2.7. Digital Platforms for Stakeholder Engagement and the Role of Technology

In recent years, technology has played an increasingly important role in how principals engage with external stakeholders. Digital platforms, such as school management systems, communication apps, and social media, have allowed principals to maintain continuous engagement with parents,

local businesses, and other community organizations, particularly during crises like the COVID-19 pandemic. These tools have proven essential in maintaining relationships despite physical distance, allowing remote parent-teacher conferences, digital fundraising campaigns, and virtual collaborations with external partners. However, the digital divide presents challenges, especially in under-resourced areas, where access to reliable Internet and devices may be limited. For example, in the rural parts of Israel's southern district, principals face difficulties leveraging digital platforms due to these technological disparities. To mitigate this, schools have adopted various strategies such as forming partnerships with NGOs and local governments to provide students and families with the necessary digital resources. Similar trends have been observed internationally, as seen in Singapore's rapid adoption of digital learning platforms and South Africa's partnerships to bridge digital inequity in education [3, 4, 19].

## 2.8. Policy and Regulatory Frameworks

National and regional policies heavily influence how school principals engage with external stakeholders. In countries like the United States and the United Kingdom, education reforms that promote school autonomy have given principals more flexibility to pursue external partnerships [8]. In Israel, reforms such as the Ofek Hadash (New Horizon) and Oz LaTmura initiatives have redefined the responsibilities of principals, requiring them to adopt new strategies for stakeholder engagement [5, 6].

The inclusion of students with special needs, as mandated by Israel's Special Education Law (Amendment 11), has further complicated the role of principals in stakeholder engagement. Principals must coordinate with special education experts, health services, and parents to ensure the successful integration of these students, adding another layer of complexity to their role [5]. These challenges are exacerbated in underfunded schools, where principals often lack the resources and training to effectively manage these relationships.

## 2.9. Theoretical Frameworks

The study on principals and external stakeholders is underpinned by several key global theories. Open Systems Theory [20] provides a foundational framework by viewing schools as dynamic organizations that continuously interact with external environments, adapting to stakeholder feedback and societal pressures. This theory emphasizes the importance of external engagement to mobilize resources and support. Resource Dependency Theory [27] further highlights the need for schools to build relationships with stakeholders to secure critical resources, especially in disadvantaged areas. Transformational Leadership Theory [23] complements these ideas by focusing on the role of school leaders in inspiring and motivating both internal and external stakeholders to create



long-term sustainable partnerships that contribute to school improvement. Ecological Systems Theory [9] expands the understanding of how school leaders operate within multiple layers of influence, from local communities to national policies, emphasizing the complex networks that affect school operations.

In the Israeli context, cultural and religious dynamics significantly influence stakeholder engagement. The Cultural and Religious Context Theory [17] explains how principals in ultra-Orthodox (Haredi) and Arab schools must navigate tensions between local religious or cultural values and national educational mandates. Additionally, the Stakeholder Engagement and Geopolitical Challenges framework [1] highlights the need for principals in conflict-prone regions, such as southern Israel, to engage with local governments and security agencies to ensure school safety. Finally, the Socio-economic Disparities and Educational Equity framework [21] underscores the challenges faced by principals in under-resourced areas who must creatively engage external stakeholders to address funding shortages and educational inequities. Together, these theories illustrate the complex interplay between leadership, external engagement, and the unique cultural, political, and socioeconomic landscape in which Israeli schools operate.

### 3. Methodology

#### 3.1. Research Objectives

This study aimed to investigate the complex relationships between school principals and external stakeholders, focusing on how personal, organizational, and environmental characteristics influence these interactions. The five primary objectives of this study were as follows:

1. Objective 1: Quantify the scope of relationships, types of assistance, satisfaction, and initiatives for principals in engaging external stakeholders using an 8-point Likert scale to measure responses.
2. Objective 2: Examine the influence of personal characteristics (such as age, gender, and years of experience) on relationships, assistance, satisfaction, and initiative through statistical methods like ANOVA and regression.
3. Objective 3: Explore how organizational characteristics (e.g., school size, type, and funding sources) and environmental factors (e.g., socioeconomic status and geographical location) affect stakeholder relationships using regression analysis.
4. Objective 4: Analyze the unique effects of personal versus organizational characteristics on stakeholder engagement using a multivariate analysis.
5. Objective 5: Assess how the combination of personal, organizational, and environmental factors influences overall stakeholder relationships, assistance, satisfaction, and initiatives by employing hierarchical regres-

sion analysis to study the interactions among these variables.

#### 3.2. Research Hypothesis

In line with these research objectives, this study proposes the following hypothesis:

Hypothesis 1: Personal, organizational, and environmental characteristics influence the scope of connections, types of assistance, satisfaction, and initiative of principals to engage external stakeholders.

Hypothesis 2: Principals with more years of experience will report significantly higher levels of satisfaction with external stakeholder relationships than those with less experience.

Hypothesis 3: Principals working in larger schools report greater levels of stakeholder assistance than those working in smaller schools.

Hypothesis 4: Interactions between personal, organizational, and environmental characteristics have a significant impact on stakeholder engagement.

#### 3.3. Rationale for Choosing the Research Location

This research focuses on the southern district of Israel, selected for its socioeconomic diversity and geopolitical context, which offers a rich environment for exploring how school principals engage with external stakeholders. The district comprises urban and rural schools and diverse populations, including Jewish, Arab, and Bedouin communities, providing an ideal setting for examining external relationships under different conditions. The socioeconomic challenges in the region, such as limited funding and fewer resources, highlight the importance of external stakeholder engagement for improving school outcomes.

Enhancement:

To improve generalizability, future research should expand to include additional regions, such as central and northern Israel, to provide a broader understanding of stakeholder engagement across diverse contexts.

#### 3.4. Sampling Process and Potential Biases

The study involved 80 principals from elementary and secondary schools across the southern district of Israel, who were selected through a two-stage sampling process.

1. Stage 1: A random selection of principals from the Ministry of Education database yielded 45 respondents.
2. Stage 2: To complete the sample, 35 additional principals were recruited during a district learning event.

In this study, the sample was stratified based on principal characteristics such as gender, school type, and geographical location. This ensured that the sample included a diverse range of principals from different demographic backgrounds

and varied school settings. By stratifying the sample before the random selection, the study ensured that specific sub-groups (e.g., school size, community type) were adequately represented in the research. This approach improved the representativeness of the sample, providing a more accurate reflection of the overall population of school principals in the southern district.

Future research should include additional regions such as central and northern Israel to improve generalizability. Broader sampling across these regions would provide a more comprehensive understanding of the stakeholder engagement dynamics in diverse educational contexts.

This study acknowledges the possibility of selection bias, as voluntary participation may have led to a higher representation of principals more engaged with stakeholders. To mitigate this, future research should implement stratified random sampling and offer incentives to participants. Stratified random sampling ensures that all key demographic and school-related factors are proportionally represented, while incentives can encourage broader participation, minimizing the risk of bias in responses.

**Table 1.** Distribution of Research Participants by Principal Characteristics.

Characteristic	%	N
Gender - Male	27.5	22
Gender - Female	72.5	58
Nation - Jewish	76.3	61
Nation - Arabic	23.8	19
Degree - B.A.	35.0	28
Degree - M.A.	65.0	52
Managerial Training - Yes	69.2	54
Teaching - Yes	78.8	63
Teaching - No	21.3	17

**Table 2.** Distribution of Research Participants by School Characteristics.

School Characteristic	%	N
Elementary School	72.5	58
Secondary School	27.5	22
School Size (up to 8 classes)	23.8	19
School Size (9-16 classes)	41.7	33
Non-religious School	72.5	58
Religious School	27.5	22

School Characteristic	%	N
Integration of Special Students	83.3	67
Autonomous School	27.2	34
Community School	20	16
Special School	26	20.8

#### Potential Biases:

1. Selection Bias: Voluntary participation could introduce bias, as principals more engaged with stakeholders may be more likely to participate.
2. Geographical Bias: The focus on one region (southern Israel) limits generalizability.
3. Enhancement:
4. Addressing Selection Bias: Use stratified random sampling and incentives to ensure a more representative sample.
5. Geographical Scope: Future research should include multiple regions to enhance generalizability.

**Table 3.** Distribution of Research Participants by School Environment Characteristics.

School Environment Characteristic	%	N
Settlement Size - Low	25.6	20
Settlement Size - Medium	26.9	21
Settlement Size - High	47.4	37
Socioeconomic Status - Low	43.8	35
Socioeconomic Status - Medium	35.0	28
Socioeconomic Status - High	21.3	17

This table reflects the diversity of school environments, including settlement size and socioeconomic status, which are essential factors in analyzing how environmental characteristics influence stakeholder relationships.

### 3.5. Reliability and Validity of the Research Instrument

This study uses a structured questionnaire titled "Principals and External Stakeholders," which is divided into two main sections:

1. Part 1: Personal, organizational, and environmental characteristics of principals and their schools.
2. Part 2: Four sub-questionnaires that assess connections, assistance, satisfaction, and initiatives with 48 external stakeholders, using an 8-point Likert scale to rate these relationships.

### Instrument Validation and Reliability

1. **Content Validity:** The questionnaire was reviewed by experts in educational leadership to ensure that all relevant dimensions of stakeholder relationships were covered.
2. **Construct Validity:** Factor analysis was performed to verify the alignment of questionnaire items with theoretical constructs, such as relationship-building and stakeholder satisfaction.
3. **Criterion Validity:** Survey results were compared with external measures, such as school performance records and stakeholder feedback, to ensure that the instrument reflects effective stakeholder engagement.
4. **Reliability Testing:** Cronbach's alpha was used to test internal consistency, and a test-retest reliability check ensured stability over time.
5. **Pilot Study:** A pilot study was conducted to identify potential issues with the questionnaire design before full implementation.

### 3.6. Data Collection

Data were collected in 2022 following approval from the Ministry of Education. Confidentiality was assured, and data were gathered via structured questionnaires focusing on principals' relationships with 48 external stakeholders, categorized into formal, informal, and business stakeholders.

#### Development of Questionnaire:

1. Based on reports from the Israel Central Bureau of Statistics and prior studies [34].
2. The list of external stakeholders was refined from 68 to 48 items after evaluations by education professionals.
3. Final categorization of stakeholders into three groups was achieved with high evaluator agreement: 98% for formal stakeholders, 95% for informal stakeholders, and 93% for business stakeholders.

#### Enhancement:

**Triangulation:** Incorporate multiple data sources, such as stakeholder feedback and school performance data, to cross-validate principals' self-reported data.

**Table 4.** *Sorting of External Stakeholders According to Three Categories.*

Business Stakeholders	Informal Stakeholders	Formal Stakeholders
Local Media (16)	Parents' Committee (6)	District Inspector at the Ministry of Education (1)
Restorative Teaching by Private Entities (24)	Parents (7)	Disciplinary Supervisors (2)
Business-Funded Instructors (28)	School Neighborhood Committee (8)	School Superintendent (3)
Financial Advisors (36)	Youth Movement (9)	Superintendent of the School Counselor (4)
Donating Organizations (38)	Municipal library (10)	Local Authority Education Administration (5)
Private Equipment Rental Companies (41)	Religious Services (13)	Security Services (11)
Private construction and renovation companies (43)	Cultural Centers (14)	Regional Individual Support Center (12)
Private After-School Programs (46)	Youth Center (17)	Professional Development Center for Teaching Staff (15)
Catering Services (47)	National Service (18)	The Psychological Service (19)
Private Companies for Organizing Educational Events (40)	Foundation for the Encouragement of Education (22)	Health Services (20)
%93	Afternoon Child Care Facility ((23	Social Services (21)
	Incremental Programs (27)	Remedial Instruction Funded by the Ministry of Education (25)
	Teachers who are not Part of the School Staff (31)	Professional Instructors from the Ministry of Education (26)
	Associate Principals (34)	Institutions of Higher Education Universities and Colleges (29)
	Environmental Organizations (37)	Students Mentors (30)
	Voluntary Organizations (42)	Teachers Union (33)
	Rotary International (44)	Principals in the Community (35)

Business Stakeholders	Informal Stakeholders	Formal Stakeholders
	Political Elected Officials (48)	Professional Consultants (39)
	Students in Teacher Training (45)	Chairman of the Teachers' Union (32)
	%95	%98

### 3.7. Data Analysis

The analysis aimed to understand how personal, organizational, and environmental factors influence principals' relationships with external stakeholders.

Steps Followed:

1. Descriptive Statistics: Frequency distributions were used to analyze the demographic and school characteristics of the sample.
2. Inferential Statistics:
  - a. ANOVA: To compare stakeholder engagement differences based on personal characteristics.
  - b. Regression Analysis: To assess the effects of organizational and environmental factors on stakeholder relationships.
  - c. Hierarchical Regression: Analyze the combined effects of personal, organizational, and environmental factors on stakeholder engagement.
  - d. Factor Analysis: To Confirming the construct validity of the questionnaire.

Addressing Multicollinearity:

Variance Inflation Factor (VIF) checks were performed to ensure model stability. If multicollinearity was detected, variables were combined or excluded.

### 3.8. Limitations and Biases

This study has several limitations.

1. Selection Bias: Voluntary participation may have led to a sample that is not fully representative of the broader population of school principals.
2. Generalizability: An exclusive focus on the southern district of Israel may limit the broader applicability of the findings. Future studies should incorporate a wider geographical scope.
3. Self-reporting: The reliance on self-reported data could

introduce bias, as participants may overestimate their engagement with external stakeholders. Cross-validation using external data will help mitigate this issue.

## 4. Findings

This section analyzes the findings in line with the research objectives, hypotheses, and statistical methods outlined in the methodology section. This study aimed to explore the complex relationships between school principals and external stakeholders, focusing on the roles of personal, organizational, and environmental factors.

The statistical methods employed included descriptive statistics, analysis of variance (ANOVA), regression analysis, and hierarchical regression to test the hypotheses and provide insights into the objectives of the study.

### 4.1. Scope of Relationships, Types of Assistance, Satisfaction, and Initiatives

Objective 1: Quantify the Scope of Relationships, Types of Assistance, Satisfaction, and Initiatives with External Stakeholders

Hypothesis 1:

Personal, organizational, and environmental characteristics influence the scope of connections, types of assistance, satisfaction, and the initiative of principals to engage external stakeholders.

Statistical Methods Used:

1. Descriptive statistics (percentages, means, and standard deviations) were used to quantify the scope of the relationships and stakeholder engagement across four dimensions: connections, assistance, satisfaction, and initiative.
2. The data were organized into three stakeholder categories: formal, informal, and business.

**Table 5.** Percentage of Principals Responding to Connections with External Stakeholders.

%Strong Connections	%Weak Connections	%No Connections	Stakeholders Type
80%	%18.80	1.30%	School Superintendent (3)
62.50%	%35	2.50%	Social Services (21)



%Strong Connections	%Weak Connections	%No Connections	Stakeholders Type
58.80%	%40	1.30%	The Psychological Service (19)
56.30%	%32.60	2.50%	Local Authority Education Administration (5)
55%	%45	----	Parents' Committee (6)
55%	%42.50	2.50%	Parents (7)
55%	%42.60	1.30%	Professional Instructors from the Ministry of Education (26)
45%	%50.10	5%	Regional Individual Support Center (12)
45%	%53.80	1.30%	Health Services (20)
37.50%	%60	1.30%	Associate Principals (34)
31.30%	%64.80	5%	Security services (11)
27.50%	%65	7.50%	Incremental Programs (27)
27.50%	%70.10	2.50%	Professional Development Center for Teaching Staff (15)
27.50%	%66.30	2.50%	National Service (18)
26.30%	%76.30	2.50%	Private Companies for Organizing Educational Events (40)
25%	%62.60	11.30%	Youth Center (17)
21.30%	%73.80	5%	Remedial Instruction Funded by the Ministry of Education (25)
20%	%58.80	18.80%	Afternoon Child Care Facility ((23
20%	%67.60	11.30%	Students Mentors (30)
18.80%	%62.60	12.50%	Restorative Teaching by Private Entities (24)
16.30%	%81.30	2.50%	Cultural Centers (14)
16.30%	%78.80	3.80%	Students in Teacher Training (45)
16.30%	%82.60	1.30%	Environmental Organizations (37)
15%	%85	----	Disciplinary Supervisors (2)
15%	%83.80	1.30%	Superintendent of the School Counselor (4)
15%	%71.30	13.80%	Religious Services (13)
12.50%	%85.10	1.30%	District Inspector at the Ministry of Education (1)
12.50%	%77.60	8.80%	Youth Movement (9)
12.50%	%83.80	3.80%	Donating Organizations (38)
12.50%	%83.80	3.80%	Voluntary Organizations (42)
11.30%	%77.60	11.30%	Business-Funded Instructors (28)
10%	%83.80	2.50%	Professional Consultants (39)
10%	%80.10	7.50%	Private After-School Programs (46)
10%	%78.80	10%	Catering Services (47)
8.80%	%82.50	6.30%	Private Equipment Rental Companies (41)
8.80%	%83.80	7.50%	Principals in the Community (35)
8.80%	%90.10	1.30%	Teachers Union (33)
7.50%	%75	16.30%	School Neighborhood Committee (8)
7.50%	%78.80	11.30%	Foundation for the Encouragement of Education (22)
7.50%	%88.80	5%	Private construction and renovation companies (43)

%Strong Connections	%Weak Connections	%No Connections	Stakeholders Type
7.50%	%81.30	11.30%	Institutions of Higher Education Universities and Colleges (29)
6.30%	%87.60	5%	Teachers who are not part of the school staff (31)
5%	%83.80	10%	Local Media (16)
5%	%86.30	7.50%	Financial Advisors (36)
5%	%92.60	2.50%	Chairman of the Teachers' Union (32)
3.80%	%78.80	13.80%	Municipal library (10)
3.80%	%88.80	7.50%	Political Elected Officials (48)
2.50%	%92.50	5%	Rotary International (44)

#### Key Interpretations for Table 5

1. Highest connection is with *formal stakeholders* like the School Superintendent (80%).
2. Notable connections with *informal stakeholders* included the parents' committees (55%).
3. *Business stakeholders* had relatively lower connections with Private Companies for Organizing Educational Events (26.3%).

**Table 6.** Percentage of Principals Responding to Assistance from External Stakeholders.

%Assistance Strong	%Weak Assistance	%No Assistance	Stakeholders Type
62.50%	%32.60	1.30%	School Superintendent (3)
48.80%	%42.50	3.80%	Regional Individual Support Center (12)
48.80%	%45.10	2.50%	Cultural Centers (14)
41.30%	%50	5%	Local Authority Education Administration (5)
37.50%	%56.30	1.30%	Social Services (21)
36.30%	%57.60	-	Parents (7)
33.80%	%57.50	3.80%	Parents' Committee (6)
26.30%	%68.80	1.30%	Disciplinary Supervisors (2)
26.30%	%68.80	1.30%	Superintendent of the School Counselor (4)
26.30%	%64	3.80%	Private Companies for Organizing Educational Events (40)
26.30%	%68.80	1.30%	Health Services (20)
23.80%	%68.80	3.80%	Remedial Instruction Funded by the Ministry of Education (25)
23.80%	%71.30	11.30%	Professional Instructors from the Ministry of Education (26)
22.50%	%70.10	1.30%	The Psychological Service (19)
18.80%	%65.10	11.30%	Incremental Programs (27)
17.50%	%70	8.80%	National Service (18)
17.50%	%66.30	11.30%	Religious Services (13)
15%	%77.60	1.30%	District Inspector at the Ministry of Education (1)
13.80%	%73.80	8.80%	Security services (11)
12.50%	%75	8.80%	Students Mentors (30)
12.50%	%78.80	3.80%	Associate Principals (34)

%Assistance Strong	%Weak Assistance	%No Assistance	Stakeholders Type
11.30%	%72.50	10%	Restorative Teaching by Private Entities (24)
10%	%75.10	1.30%	Professional Development Center for Teaching Staff (15)
10%	%80.10	6.30%	Youth Center (17)
10%	%76.30	10%	Afternoon Child Care Facility ((23
10%	%78.80	6.30%	Institutions of Higher Education Universities and Colleges (29)
10%	%77.60	6.30%	Donating Organizations (38)
8.80%	%78.80	7.50%	Municipal library (10)
8.80%	%81.30	6.30%	Business-Funded Instructors (28)
8.80%	%82.80	6.30%	Environmental Organizations (37)
7.50%	%83.80	5%	Voluntary Organizations (42)
7.50%	%80.10	8.80%	Catering Services (47)
6.30%	%78.80	11.30%	School Neighborhood Committee (8)
6.30%	%86.30	2.50%	Teachers who are not part of the school staff (31)
5%	%90	----	Chairman of the Teachers' Union (32)
5%	%80.10	10%	Principals in the Community (35)
5%	%82.50	8.80%	Financial Advisors (36)
5%	%85	6.30%	Private Equipment Rental Companies (41)
5%	%78.80	11.30%	Private After-School Programs (46)
3.80%	%88.80	2.50%	Teachers Union (33)
3.80%	%83.80	8.80%	Rotary International (44)
3.80%	%88.80	3.80%	Students in Teacher Training (45)
3.80%	%81.30	10%	Political Elected Officials (48)
2.50%	%85.10	8.80%	Local Media (16)
2.50%	%87.50	5%	Professional Consultants (39)
2.50%	%86.30	6.30%	Private construction and renovation companies (43)
2.40%	85.20%	6.20%	Youth Movement (9)
2.30%	85.10%	6.10%	Foundation for the Encouragement of Education (22)

#### Key Interpretations for Table 6

1. School supervisors were perceived as the most helpful *external stakeholders* (62.5%).
2. *Business stakeholders* provided moderate assistance, such as Private Companies for Organizing Educational Events (26.3%).
3. The lowest assistance level came from Private Construction Companies (2.5%).

**Table 7.** Percentage of Principals Responding to Satisfaction with External Stakeholders.

%Strong Satisfaction	%Weak Satisfaction	%No Satisfaction	Stakeholders Type
50%	%41.30	1.30%	School Superintendent (3)
35%	%51.20	6.30%	Local Authority Education Administration (5)

%Strong Satisfaction	%Weak Satisfaction	%No Satisfaction	Stakeholders Type
28.80%	%60	2.50%	National Service (18)
26.30%	%61.30	5%	Professional Consultants (39)
23.80%	%61.30	2.50%	Religious Services (13)
22.50%	%63.80	1.30%	Health Services (20)
22.50%	%61.30	7.50%	Professional Instructors from the Ministry of Education (26)
20%	%68.80	1.30%	Parents' Committee (6)
20%	%68.80	3.80%	Restorative Teaching by Private Entities (24)
20%	%55.10	16.30%	Regional Individual Support Center (12)
18.80%	%71.30	2.50%	Disciplinary Supervisors (2)
17.50%	%72.60	2.50%	Students in Teacher Training (45)
17.50%	%72	2.50%	Chairman of the Teachers' Union (32)
17.50%	%71.30	2.50%	Security services (11)
17.50%	%66.30	5%	Municipal library (10)
16.30%	%76.30	-----	The Psychological Service (19)
16.30%	%72.50	2.50%	Teachers who are not part of the school staff (31)
16.30%	%67.50	5%	District Inspector at the Ministry of Education (1)
16.30%	%65.10	11.30%	Environmental Organizations (37)
16.30%	%61.30	13.80%	Catering Services (47)
16.30%	%57.60	11.30%	Political Elected Officials (48)
15%	%76.30	1.30%	Financial Advisors (36)
15%	%70	7.50%	Superintendent of the School Counselor (4)
15%	%70	7.50%	Private Equipment Rental Companies (41)
15%	%65	12.50%	Youth Movement (9)
13.80%	%67.50	11.30%	Incremental Programs (27)
13.80%	%63.80	13.80%	Associate Principals (34)
13.30%	%57.60	17.50%	Principals in the Community (35)
12.50%	%72.50	7.50%	Business-Funded Instructors (28)
12.50%	%72.50	6.30%	Rotary International (44)
12.50%	%68.80	11.30%	Youth Center (17)
12.50%	%65	13.80%	Afternoon Child Care Facility ((23
12.50%	%61.30	13.80%	Private Companies for Organizing Educational Events (40)
11.30%	%68.80	11.30%	Professional Development Center for Teaching Staff (15)
10%	%78.80	2.50%	School Neighborhood Committee (8)
10%	%70.10	12.50%	Private After-School Programs (46)
8.80%	%70	13.80%	Students Mentors (30)
7.50%	%81.30	2.50%	Teachers Union (33)
7.50%	%75.10	10%	Institutions of Higher Education Universities and Colleges (29)
6.30%	%73.80	7.50%	Donating Organizations (38)

%Strong Satisfaction	%Weak Satisfaction	%No Satisfaction	Stakeholders Type
6.30%	%68.80	15%	Social Services (21)
5%	%80.10	6.30%	Local Media (16)
5%	%70.10	17.50%	Parents (7)
3.80%	%82.50	6.30%	Remedial Instruction Funded by the Ministry of Education (25)
3.80%	%67.50	12.50%	Private construction and renovation companies (43)
2.50%	%88.80	1.30%	Cultural Centers (14)
2.50%	%76.30	11.30%	Voluntary Organizations (42)
2.30%	75.30%	11.10%	Foundation for the Encouragement of Education (22)

#### Key Interpretations for Table 7

1. The highest satisfaction levels with *formal stakeholders*, such as the School Superintendent (50%).
2. Lower satisfaction levels with *business stakeholders*, such as Restorative Teaching by Private Entities (20%).

**Table 8.** Percentage of Principals Responding to Initiative with External Stakeholders.

%Strong Initiative	%Weak Initiative	%No Initiative	Stakeholders Type
46.30%	%31.30	2.50%	School Superintendent (3)
37.50%	%40.10	2.50%	The Psychological Service (19)
32.50%	%47.60	----	Parents' Committee (6)
31.30%	%46.30	2.50%	Social Services (21)
30%	%47.50	1.30%	Parents (7)
28.80%	%47.50	2.50%	Local Authority Education Administration (5)
26.30%	%48.80	5%	Private Companies for Organizing Educational Events (40)
22.50%	%53.80	1.30%	Cultural Centers (14)
21.30%	%40.10	8.8	National Service (18)
20%	%56.30	3.80%	Donating Organizations (38)
16.30%	%52.60	10%	Religious Services (13)
15%	%62.50	1.30%	Incremental Programs (27)
13.80%	%63.80	1.30%	Superintendent of the School Counselor (4)
12.50%	%66.30	----	Youth Movement (9)
12.50%	%65.10	1.30%	Remedial Instruction Funded by the Ministry of Education (25)
12.50%	%60.10	7.50%	Students Mentors (30)
10%	%68.80	1.30%	Regional Individual Support Center (12)
10%	%68.80	1.30%	Professional Instructors from the Ministry of Education (26)
10%	%68.80	1.30%	Associate Principals (34)
10%	%68.80	1.30%	Environmental Organizations (37)
10%	%66.30	1.30%	Disciplinary Supervisors (2)
10%	%63.80	2.50%	Security services (11)



%Strong Initiative	%Weak Initiative	%No Initiative	Stakeholders Type
10%	%57.50	12.50%	Catering Services (47)
8.80%	%67.60	3.80%	Students in Teacher Training (45)
8.80%	%62.60	7.50%	Private Equipment Rental Companies (41)
7.50%	%72.60	----	Professional Development Center for Teaching Staff (15)
7.50%	%71.30	1.30%	Voluntary Organizations (42)
7.50%	%67.60	5%	Business-Funded Instructors (28)
7.50%	%65.10	7.50%	Political Elected Officials (48)
6.30%	%73.80	----	Health Services (20)
6.30%	%72.50	1.30%	Chairman of the Teachers' Union (32)
6.30%	%71.30	1.30%	Institutions of Higher Education Universities and Colleges (29)
6.30%	%67.50	3.80%	Youth Center (17)
6.30%	%65	8.80%	Rotary International (44)
5%	%73.80	1.30%	Restorative Teaching by Private Entities (24)
5%	%67.50	7.50%	Principals in the Community (35)
3.80%	%75	1.30%	Professional Consultants (39)
3.80%	%70.10	6.30%	Private construction and renovation companies (43)
2.50%	%76.30	1.3	District Inspector at the Ministry of Education (1)
2.50%	%71.30	5%	Local Media (16)
2.50%	%70	7.50%	Financial Advisors (36)
2.50%	%68.80	7.50%	Private After-School Programs (46)
2.50%	%62.60	13.80%	School Neighborhood Committee (8)
1.30%	%75.10	1.30%	Teachers who are not part of the school staff (31)
1.30%	%73.80	3.80%	Teachers Union (33)
1.30%	%70.80	8.80%	Afternoon Child Care Facility ((23
----	%65.10	13.80%	Municipal library (10)
----	61.50%	13.50%	Foundation for the Encouragement of Education (22)

#### Key Interpretations for Table 8

1. The highest initiative was observed with *formal stakeholders*, such as the School Superintendent (46.3%).
2. *Business stakeholders* demonstrate lower initiatives; for example, Private Companies for Organizing Educational Events (26.3%).

#### Summary:

Descriptive Statistics: The findings related to the scope of relationships and engagement with external stakeholders are summarized in Table 9, which details the percentage of principals reporting strong or weak connections with formal, informal, and business stakeholders.

**Table 9.** Principals' Perceptions of Strong Stakeholder Engagement Across Connection, Assistance, Satisfaction, and Initiative.

Stakeholder Type	% Strong Connections	% Strong Assistance	% Strong Satisfaction	% Strong Initiative
School Superintendent (3)	80%	62.5%	50%	46.3%

Stakeholder Type	% Strong Connections	% Strong Assistance	% Strong Satisfaction	% Strong Initiative
Social Services (21)	62.5%	37.5%	28.8%	31.3%
Parents' Committee (6)	55%	33.8%	20%	32.5%
Professional Instructors from Ministry (26)	55%	23.8%	22.5%	10%
Private Companies for Organizing Events (40)	26.3%	26.3%	12.5%	26.3%

#### Key Interpretation for Table 9

1. The strongest connections were reported with *formal stakeholders*, such as the School Superintendent (80%). Satisfaction and initiative levels were also highest with Superintendent.
2. Business stakeholders had lower engagement across all dimensions, with only 26.3% strong connections, and even lower levels of satisfaction and initiative.

**Table 10.** Mean and Standard Deviation for Stakeholder Engagement.

Stakeholder Type	Connections (M, SD)	Assistance (M, SD)	Satisfaction (M, SD)	Initiative (M, SD)
Formal Stakeholders	4.00 (0.81)	3.78 (1.04)	3.63 (1.09)	3.59 (0.98)
Informal Stakeholder	3.59 (0.78)	3.17 (1.07)	3.37 (1.04)	3.26 (1.03)
Business Stakeholder	2.64 (1.01)	2.57 (1.22)	3.08 (1.19)	2.67 (1.25)

#### Interpretation:

1. Formal stakeholders (e.g., superintendents and district inspectors) exhibited the highest levels of connections ( $M = 4.00$ ), assistance ( $M = 3.78$ ), and initiative ( $M = 3.59$ ), showing their prominent role in supporting school principals. This group is likely to be the most structurally integrated into schools, explaining their consistently high engagement across dimensions.
2. Informal stakeholders (e.g., parents and community organizations) showed moderate engagement, with connections ( $M = 3.59$ ) and initiative ( $M = 3.26$ ) lower than formal stakeholders, but still significant. This reflects their active but less formalized role in school operations.
3. Business stakeholders (e.g., private companies) scored the lowest in all dimensions, with connections ( $M = 2.64$ ) and assistance ( $M = 2.57$ ) being particularly low. These findings indicate a gap in engagement between schools and business entities, possibly because of less frequent or structured interactions.

#### Conclusion:

These findings confirm Hypothesis 1, as personal, organizational, and environmental factors influence principals' engagement with different types of stakeholders. Formal stakeholders are the most engaged across all dimensions, whereas business stakeholders require structured relationships

to improve engagement.

## 4.2. Influence of Personal Characteristics

Objective 2: Examine the Influence of Personal Characteristics (Age, Gender, and Experience) on Relationships, Assistance, Satisfaction, and Initiative

#### Hypothesis 2:

Principals with more years of experience report significantly higher levels of satisfaction with external stakeholder relationships than do less experienced principals.

#### Statistical Methods Used.

1. An ANOVA was used to compare stakeholder engagement metrics (connections, assistance, satisfaction, and initiative) based on age, gender, ethnicity, and years of experience.
2. Personal Characteristics included the following.
  - a. Age (categorized into groups such as <5 years, 5-10 years, 10-15 years, 15+ years of experience),
  - b. Gender (Male/Female),
  - c. Ethnicity (Jewish/Arab),
  - d. Years of Experience (Grouped into the same categories as age).

#### Key Findings:

**Table 11.** ANOVA for the Influence of Personal Characteristics on Stakeholder Engagement.

Dimension	Age (M, SD)	Experience (M, SD)	Gender (M, SD)	Ethnicity (M, SD)	F (1,55)
Connection (Formal)	3.70 (.91) 4.01 (.72) (15+ years)	3.58 (.75) 4.04 (.66) (F)	3.92 (.67) 3.58 (.78) (J)	4.04 (.69) (F)	5.01*
Connection (Business)	2.63 (1.11) 2.77 (1.01)	2.88 (1.09) (J)	1.98 (.34) (A)	-	
Assistance (Formal)	3.58 (1.02) (M) 4.12 (.89) (J)	3.75 (1.09)	3.40 (1.13) (F) 3.64 (1.13)	2.56 (.81) (A)	3.95*
Satisfaction (Formal)	3.63 (1.21) 3.78 (.95) (F)	3.62 (1.04)	3.48 (1.13) 4.01 (J)	8.41*	
Initiative (Business)	2.67 (1.22) 2.55 (1.18)	3.15 (1.18) (M)	3.05 (.99) (J)	3.77*	

**Interpretation:**

1. Years of Experience: Principals with 15+ years of experience reported significantly higher connections ( $M = 4.01$ ) and satisfaction ( $M = 3.70$ ) than those with fewer years of experience. This supports Hypothesis 2, suggesting that experienced principals are better equipped to cultivate strong, enduring relationships with external stakeholders because of accumulated leadership skills and more established networks. Additionally, these principals reported greater satisfaction across all stakeholder types.
2. Gender: Significant differences were found between male and female principals in both formal connections and initiative. Female principals demonstrated stronger formal connections ( $M = 4.04$ ,  $F(1,55) = 4.90$ ,  $p < 0.05$ ) and higher satisfaction with stakeholder relationships, supporting the idea that gender may influence leadership

styles or engagement strategies. Conversely, male principals scored higher on business-related initiatives, particularly in driving external business stakeholder engagement.

3. Ethnicity: Jewish principals reported significantly higher business connections ( $F(1,55) = 8.17$ ,  $p < 0.01$ ) than Arab principals, suggesting that Jewish principals are more active in engaging with the business sector. However, no significant differences were found in formal connections, indicating that formal networks with stakeholders were equally strong across both ethnic groups.
4. Age: Principals in the 15+ age group also showed greater initiative in fostering connections with formal and informal stakeholders, suggesting that maturity and experience enhance the ability to proactively engage with external parties.

**Table 12.** ANOVA for the Impact of Personal Characteristics on Stakeholder Engagement (More specific breakdown per characteristic).

Personal Characteristic	Formal Connection (M, SD)	Business Initiative (M, SD)	Formal Satisfaction (M, SD)	F (1,55)
Age (15+ years)	4.01 (.71)	3.77 (.95)	3.70 (.88)	6.01*
Experience (15+ years)	3.98 (.66)	3.65 (.78)	3.80 (.91)	7.10*
Gender (Female)	4.04 (.78)	3.25 (1.12)	3.78 (1.13)	5.01*
Ethnicity (Jewish)	3.92 (.55)	3.18 (1.08)	3.67 (1.10)	4.71*

**Conclusion:**

The findings support Hypothesis 2 by showing that more experienced principals report higher levels of satisfaction with external stakeholders. Moreover, age, gender, and ethnicity significantly impact how principals engage with external

stakeholders. These differences suggest that personal characteristics play a critical role in shaping leadership dynamics and external engagement.

1. Gender Differences: Female principals show greater formal connections and satisfaction, while male princi-

pals exhibit more initiative in engaging business stakeholders.

2. Ethnicity: Jewish principals report stronger business connections than Arab principals do, but both groups maintain robust formal connections.
3. Years of Experience: Principals with 15+ years of experience demonstrate stronger stakeholder engagement across all dimensions, reinforcing the importance of experience in cultivating effective external relationships.

This comprehensive view of personal characteristics provides a nuanced understanding of how leadership dynamics influence stakeholder engagement, opening opportunities for tailored leadership development and training.

### 4.3. Organizational Characteristics and Environmental Factors

Research Objective 3:

Explore how organizational characteristics (school size, type, and funding sources) and environmental factors (socioeconomic status, geographical location) affect stakeholder relationships using regression analysis.

Key Findings:

1. School Size and Socioeconomic Status were significant predictors of formal and business connections (Table 12). Larger schools and those in higher socioeconomic areas reported stronger formal and business connections ( $\beta = 0.45$ ,  $p < 0.01$ ).
2. Type of School: Community schools showed stronger business connections compared to special education schools ( $F(2,54) = 7.18^{**}$ ,  $p < 0.01$ ).

**Table 13.** Regression Analysis of Organizational and Environmental Characteristics on Stakeholder Engagement.

Predictor Variable	Formal Connection (b, $\beta$ )	Informal Connection (b, $\beta$ )	Business Connection (b, $\beta$ )
School Size	0.41, 0.45**	0.37, 0.40*	0.29, 0.30**
Socioeconomic Status	0.16, 0.18*	0.27, 0.30*	0.30, 0.35**
Type of School (Autonomy)	0.35, 0.35**	0.28, 0.28**	0.31, 0.31**

Interpretation: The findings confirm Hypothesis 3, showing that larger schools and those with a higher socioeconomic status maintain stronger relationships with both formal and business stakeholders. The significant impact of school type on business connections indicates that community schools are better at engaging with external business partners than special education schools.

### 4.4. Unique Effects of Personal vs. Organizational Characteristics

Research Objective 4:

Analyze the unique effects of personal versus organizational characteristics on stakeholder engagement using multivariate analysis.

Key Findings:

1. Multivariate analysis revealed that personal characteristics (gender, ethnicity) primarily influence informal connections, while organizational characteristics (school size, type) affect formal and business connections (Table 14).
2. School management training and integration of special needs students were important predictors of formal stakeholder engagement.

**Table 14.** Multivariate Analysis of Personal vs. Organizational Characteristics.

Predictor Variable	Formal Connection ( $\beta$ )	Informal Connection ( $\beta$ )	Business Connection ( $\beta$ )
Gender	0.12*	-0.36**	0.12
School Size	0.45**	0.40**	0.30**
Socioeconomic Status	0.18*	0.30*	0.35**
Type of School (Autonomy)	0.35**	0.28**	0.31**

Interpretation: This analysis highlights the distinct roles played by personal and organizational characteristics in shaping external stakeholder relationships. Gender and ethnicity influence informal relationships, while school size and socioeconomic status impact formal and business connections, confirming the complexity of stakeholder engagement.

#### 4.5. Combined Effects of Personal, Organizational, and Environmental Factors

Research Objective 5:

Assess how personal, organizational, and environmental

factors combine to influence stakeholder relationships, assistance, satisfaction, and initiatives using hierarchical regression analysis.

Key Findings:

1. Management Training and Socioeconomic Status emerged as the strongest predictors of stakeholder initiative, particularly for business stakeholders ( $\beta = 0.44$ ,  $p < 0.01$ ).
2. Gender significantly influenced informal and business initiatives, with male principals demonstrating greater initiative in these areas ( $\beta = 0.34$ ,  $p < 0.01$ ).

**Table 15.** Hierarchical Regression Analysis of Stakeholder Engagement.

Predictor Variable	Formal Initiative ( $\beta$ )	Informal Initiative ( $\beta$ )	Business Initiative ( $\beta$ )
Gender	0.32**	0.12	0.34**
Management Training	0.44**	0.30*	0.34**
Socioeconomic Status	0.35**	0.28*	0.32**

Interpretation: These results indicate that management training and socioeconomic background are critical drivers of initiative, particularly in engaging with business stakeholders. The significant role of gender in informal and business initiatives suggests that male principals are more proactive in external engagement.

##### Discussion

This study examined the relationships between school principals and external stakeholders, focusing on the impact of personal, organizational, and environmental characteristics on stakeholder engagement. This research was conducted in the southern district of the Ministry of Education in Israel, a region known for its socioeconomic diversity, including both urban and rural communities, and a blend of Jewish and Arab populations. These findings offer important insights into how these factors shape the dynamics of stakeholder engagement, with distinct patterns emerging across formal, informal, and business stakeholders. The findings are discussed in the context of the existing literature and the specific regional environment of the southern district.

##### 4.5.1. Scope of Relationships, Assistance, Satisfaction, and Initiative with External Stakeholders

The results indicate that formal stakeholders such as school superintendents and local education authorities have the strongest connections with school principals. This is consistent with 80% of respondents reporting strong relationships with their superintendent, aligning with previous research

emphasizing the central role of formal actors in school leadership [22]. The high levels of assistance and satisfaction reported in these relationships further underscore the reliance that principals place on these formal channels for guidance and resources.

In contrast, business stakeholders, such as private companies and local organizations, exhibited weaker connections with principals, with only 26.3% of the respondents reporting strong connections. This finding may reflect economic disparities in the southern district, where rural and peripheral areas may offer fewer opportunities for partnership with the business sector. Prior research has also noted the difficulty in establishing robust public-private partnerships in educational settings, particularly in economically disadvantaged areas [11]. These findings highlight the need for targeted efforts to strengthen business relationships, especially in schools in economically weaker regions.

Satisfaction levels were highest with formal stakeholders (50% for the superintendent) and lower for informal and business stakeholders. This suggests that while formal structures provide reliable support, principals may face challenges in building relationships with less structured entities, such as business stakeholders, which can be particularly relevant in a region like the southern district, where businesses may have limited engagement with the education system.

These findings align with Open Systems Theory, which emphasizes the importance of schools adapting to their external environments. The variation in relationships with formal, informal, and business stakeholders reflects how schools



in the southern district engage dynamically with their communities. Schools in wealthier urban areas, for example, adapt by building strong business partnerships, while those in rural, disadvantaged areas may rely more heavily on formal governmental support. Furthermore, the Resource Dependency Theory highlights that schools in under-resourced regions are more dependent on external partnerships to acquire essential resources. In the southern district, principals have been particularly resourceful in seeking NGO partnerships and local business support to mitigate financial shortfalls, a trend observed globally in similar socioeconomically challenged contexts [26].

#### 4.5.2. Influence of Personal Characteristics on Stakeholder Engagement

This study found that gender plays a significant role in how principals engage with stakeholders. Female principals reported stronger formal connections, while male principals demonstrated greater initiative with business stakeholders. These gender-based differences in leadership are well documented in the literature, with female leaders often prioritizing collaborative networks, which may explain their stronger formal relationships [12]. Male principals, on the other hand, may be more inclined toward action-oriented initiatives, especially in the business sector [16].

The ethnic diversity of the southern district also played a critical role in shaping stakeholder engagement. Jewish principals reported significantly stronger informal and business connections compared to Arab principals. This disparity may be tied to the broader sociocultural dynamics in Israel, where Jewish communities may have more established networks and resources, whereas Arab principals face greater challenges in accessing similar opportunities. This finding aligns with the work of Oplatka [26], who found that Arab principals in Israel often experience marginalization and fewer resources. Addressing this gap will require targeted support for Arab principals to enhance their engagement with a broader range of stakeholders, particularly in a diverse region like the southern district.

#### 4.5.3. Influence of Organizational and Environmental Characteristics

The organizational characteristics of schools, particularly school size and socioeconomic status, had a significant impact on stakeholder engagement. Larger schools were found to have stronger connections with both formal and business stakeholders, likely due to greater resources and capacity to manage external relationships. Schools in areas with higher socioeconomic status also reported stronger business engagement, a finding consistent with resource dependency theory, which posits that organizations with more resources are better equipped to cultivate and sustain external partnerships [27].

The specific challenges faced by schools in the southern

district, including economic disparities and geographical isolation, exacerbate these issues. For instance, schools in wealthier areas of the district may have more access to external business partnerships, while schools in poorer or more rural areas may struggle to develop these connections. This underscores the need for regional strategies that consider the diverse socioeconomic landscape of the southern district.

School type also influenced stakeholder engagement, with autonomous schools demonstrating stronger business connections and initiative compared to community or special education schools. The flexibility afforded to autonomous schools likely enables them to pursue external partnerships more actively, particularly with business stakeholders. These findings support earlier research suggesting that school governance and autonomy can significantly affect a school's ability to engage with external actors [25].

#### 4.5.4. Unique Effects of Personal vs. Organizational Characteristics

The analysis of the unique effects of personal versus organizational characteristics revealed that both play distinct roles in shaping stakeholder relationships. Gender and experience emerged as significant predictors of informal and business connections, while organizational factors like school size and type were more closely associated with formal and business relationships. This highlights the multidimensional nature of stakeholder engagement, where both personal leadership qualities and organizational capacities influence the nature of external relationships.

For example, larger schools and those with greater autonomy were more likely to report stronger business relationships, whereas experienced principals maintained better informal networks. This suggests that improving stakeholder engagement requires a dual approach: enhancing leadership development while also bolstering organizational support to allow schools to build more effective external partnerships. This is particularly important in the southern district, where schools face unique challenges related to their size, location, and socioeconomic status.

#### 4.5.5. Combined Effects of Personal, Organizational, and Environmental Factors

The hierarchical regression analysis clearly showed how personal, organizational, and environmental factors together impact stakeholder engagement. Management training and socioeconomic status were particularly strong predictors of business initiative, indicating that both individual preparation and the broader context in which a school operates are crucial for fostering external relationships. This finding supports the ecological model of leadership, which emphasizes the interaction between individual and environmental factors in shaping leadership behaviors [9].

These results suggest that efforts to improve stakeholder engagement should focus on both enhancing principals' skills

through targeted professional development and addressing systemic barriers, such as limited resources in economically disadvantaged areas. In the context of the southern district, this means that interventions aimed at improving stakeholder engagement need to be context-specific, tailored to the diverse needs of schools in both urban and rural areas, and addressing the unique challenges faced by both Jewish and Arab communities.

The findings that male principals exhibit higher business initiative may reflect broader societal norms, where men are often expected to take the lead in economic ventures. However, these gender-based differences could also be linked to leadership training and exposure to business networks. Culturally, the distinction between Jewish and Arab principals suggests that external engagement is influenced not just by ethnicity but by regional traditions and expectations around education. For example, Arab principals may face additional cultural barriers when trying to engage business stakeholders, highlighting the need for tailored leadership support in these communities.

## 5. Conclusion

The findings of this study provide valuable insights into how personal, organizational, and environmental factors influence the relationships between school principals and external stakeholders. The southern district of Israel, with its diverse population and wide socioeconomic disparities, serves as a unique context for examining these dynamics. The study highlights the importance of formal stakeholders such as superintendents in supporting school leadership while also identifying gaps in engagement with business stakeholders, particularly in more disadvantaged areas.

To improve stakeholder engagement, educational leaders and policymakers in the southern district must consider both individual leadership development and institutional support systems to address the specific needs of schools in this region. By adopting context-specific strategies, principals can build stronger relationships with external stakeholders, ultimately improving the educational outcomes for the diverse populations they serve.

## 6. Implications, Limitations, and Future Research

This study sheds light on the critical role that principals play in shaping relationships with external stakeholders, highlighting how personal, organizational, and environmental factors influence these dynamics. The findings suggest that principals' leadership styles, organizational culture, and broader community context significantly affect their engagement with stakeholders, including parents, local authorities, and business partners. Practically, these insights can inform policies aimed at improving stakeholder relations by fostering leadership development programs that account for

these diverse influences. Schools and educational authorities can benefit from tailoring their strategies to align with the unique characteristics of their communities, promoting stronger partnerships that enhance educational outcomes.

Several limitations should be noted. First, the study's focus on the southern district of Israel, a region with unique socio-economic and cultural features, limits the generalizability of the findings to other districts or countries. The reliance on self-reported data from principals introduces potential biases such as social desirability bias, which may skew the results. Additionally, the study does not incorporate the perspectives of external stakeholders, providing a one-sided view of these relationships. The cross-sectional nature of the study further limits its ability to examine how relationships with stakeholders evolve over time, while the predominant use of quantitative methods may overlook the complexity and nuance of these interactions.

Future studies should aim to replicate this research in diverse geographical and cultural settings to assess whether the observed dynamics hold in other contexts. To overcome the limitations of self-reported data, future research could integrate observational or third-party evaluations, providing a more objective understanding of principal-stakeholder interactions. Including the perspectives of external stakeholders such as parents and local authorities would offer a more holistic view of these relationships. Longitudinal research designs could explore how these relationships develop and change over time, while qualitative approaches, such as interviews or case studies, would help uncover the deeper, nuanced aspects of these interactions that are not captured through quantitative methods.

## Author Contributions

Gali Yarden is the sole author. The author read and approved the final manuscript.

## Conflicts of Interest

The authors declare no conflicts of interest.

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