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Identifying Components of Organizational Knowledge Sharing and Examining Its Impact on Psychological Empowerment Among Faculty Members of Public Universities in Iraq

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Abstract

Universities, as educational and research environments, can serve as appropriate platforms for knowledge sharing. Faculty members are recognized as the most vital element of universities and as individuals who possess intellectual and cognitive capital. They share their knowledge under specific conditions and contribute to the success of the organization. Accordingly, the present study was conducted with the aim of identifying the components of organizational knowledge sharing and examining its impact on psychological empowerment among faculty members of public universities in Iraq. This research employed a mixed-methods design. In the qualitative phase, data collection tools included systematic review and Delphi panel, while in the quantitative phase, questionnaires derived from the qualitative findings were used. Data analysis was carried out using SPSS and hierarchical regression analysis. As a result, the dimensions and components of knowledge sharing behavior and psychological empowerment among faculty members were first extracted through a systematic review of 86 articles published between 2020 and 2025, and were then validated and categorized by 50 experts. The identified components of knowledge sharing behavior included: individual factors, organizational factors, technological and infrastructural factors, social and interpersonal factors, environmental and cultural factors, and barriers and challenges to knowledge sharing. Based on the components obtained in the qualitative phase, the impact of knowledge sharing behavior on psychological empowerment was assessed by distributing questionnaires to 150 faculty members in the field of management at public universities in Iraq. In the first step, psychological empowerment was entered as the dependent variable, and age, gender, work experience, and job position were entered as independent variables. Hierarchical regression was then performed. The base model was found to be statistically insignificant, and none of the variables (age, gender, work experience, and job position) had a significant relationship with psychological empowerment. Moreover, in the full model, the adjusted coefficient of determination indicated a high explanatory power of the model in accounting for changes in psychological empowerment. The results of hierarchical regression analysis showed that each of the six dimensions of organizational knowledge sharing had a positive and significant impact on the psychological empowerment of faculty members.

Keywords: knowledge sharing, organizational knowledge, psychological empowerment, university faculty.

1. Introduction

In today's world, given the scarcity of resources, the growing demand for services, advancements in technology, and societal expectations of organizations, managing institutions based on personal preferences, traditional methods, individual biases, social status, or ethnic favoritism is no longer viable. Instead, organizations must be governed based on effective experiences, skills, motivation, commitment, and innovative orientation to achieve their goals in a complex global environment. Recent studies indicate that organizational success hinges on appropriate decisions and actions informed by diverse types of awareness, skills, cross-cultural communication, and commitment—summarized as emotional and organizational intelligence—which complement logical intelligence in managing modern organizations (Bori & Block, 2023).

A critical requirement for converting information and experience into usable organizational knowledge is the distribution and sharing of knowledge within the organization. The most essential step in this process is analyzing the transfer of individual knowledge to the group or organization. Conklin (2002) contends that one of the most crucial phases of knowledge management is the sharing and dissemination of knowledge. As interest in knowledge management rapidly expands across industries and academic research worldwide—assuming a key role in many organizations—understanding solutions for managing knowledge (i.e., knowledge sharing), which ensures organizational knowledge is effectively disseminated and utilized throughout all departments, has gained special importance (Fuchs et al., 2020).

Currently, due to the vital role of knowledge management in global management and economics, many knowledge management experts are expanding knowledge management capabilities—especially in light of technological advancements—to achieve competitive success. One of the key enablers of knowledge management is the process of knowledge sharing. In today's societies and organizations, knowledge sharing is an absolute necessity. However, the distribution and sharing of knowledge is not a mechanical process managed by a centralized coordinating body. Rather, knowledge is a commodity transferable through individual interactions and communication. Once knowledge is created, the act of sharing can contribute to new insights and enhance organizational performance. Thus, knowledge-sharing and learning activities among employees facilitate the implementation of knowledge management processes within organizations (Mojtahedi, 2018; Zamiri & Esmaeili, 2024).

In addition to organizations, educational and research institutions—especially universities—have come to recognize the importance of knowledge management and its key component: knowledge sharing. Faculty members play a significant role in universities. They are responsible for educating students at various levels, conducting research, mentoring and advising, and participating in internal and external committees. They also engage in professional activities such as association membership, editorial board participation, and collaborative discussion groups with peers—activities that involve the sharing of knowledge with colleagues. Instructors often prefer to share knowledge through formal and informal groups, electronic communication, and workshops, as this enhances the speed of learning. Knowledge sharing among faculty members reduces time and costs, prevents redundancy, and fosters the exchange of ideas, ultimately leading to individual, group, and organizational improvements (Ahmadizadeh, 2019).

Furthermore, universities play a critical role in the economic, social, and cultural development of countries by training the expert human capital needed across sectors. Therefore, strengthening and expanding this sector lays the foundation for broader national development. Faculty members are key contributors to the educational system, and their psychological empowerment directly impacts the quality of higher education. The quality of academic work—teaching and research—depends largely on faculty dynamism. All core university functions, including knowledge creation (research and advancement of core science), knowledge synthesis (integration of ideas), knowledge application (real-world implementation), and education, are carried out by faculty members. Hence, the effectiveness and efficiency of universities are intrinsically linked to faculty quality (Dehbozorgi, 2020).

According to Etzioni (1964), universities are comprised of specialists who produce, utilize, preserve, and transmit knowledge and are responsible for setting goals and performance standards. Lightfoot (1986) defines psychological

empowerment in educational settings as providing instructors with opportunities for autonomy, choice, responsibility, and participation in decision-making. Freimer emphasizes that every educational improvement effort revolves around instructors. An effective educational environment enhances instructor satisfaction, which in turn impacts student satisfaction. In a study by White (1992), psychological empowerment of academic staff was linked to participatory decision-making. Marouf (1987) suggested that psychological empowerment among instructors is related to improved status, increased knowledge, and access to decision-making. Matz (1986) argued that self-worth, efficacy, and empowerment are fundamental to educational effectiveness. Psychological empowerment of academic staff may improve faculty performance and, indirectly, student learning outcomes (Caouette et al., 2023).

It can be concluded that most studies have focused on innovative work behavior and individual factors. The present study considers these elements under the umbrella of psychological empowerment to investigate the impact of knowledge-sharing behavior among faculty members of public universities in Iraq. On the other hand, recent trends show that researchers have increasingly focused on digital and virtual platforms, exploring faculty members' knowledge-sharing behaviors within social networks, as well as factors influencing such behaviors in virtual environments. This trend highlights the importance of studying knowledge sharing in academic and research settings. Therefore, the psychological empowerment of human capital in universities is particularly crucial given its role in advancing society across various dimensions. Universities must identify and deploy appropriate mechanisms tailored to their specific contexts to empower their faculty psychologically. Faculty members are the cornerstone and central axis of universities, representing the foundation of academic dynamism. Thus, it appears that in knowledge-based organizations such as universities, knowledge sharing holds a distinct and strategic position, with faculty serving as the intellectual capital driving knowledge production. Consequently, understanding the behaviors that promote faculty knowledge sharing is essential. This study first identifies the dimensions and components of knowledge-sharing behavior among faculty members, then examines the relationship and impact of these elements on the psychological empowerment of faculty at public universities in Iraq—considering these traits as human features influencing knowledge-sharing behavior. Notably, no prior research has addressed this topic in Iraq.

2. Methods and Materials

The present study, in terms of orientation, falls under the category of developmental research. The dominant paradigm of this research is pragmatism. This is a mixed-methods study, guided by an inductive–deductive approach.

The qualitative data analysis strategy employed in this research involves the use of a systematic literature review and Delphi panel, utilizing the insights of identified experts. Given that the study primarily relies on the perspectives of participants (i.e., the quantitative sample), the analysis strategy for quantitative data is survey-based, and the quantitative analysis method includes structural equation modeling (SEM) and hierarchical multiple regression analysis.

In the qualitative phase, the study population consisted of research literature, as this stage was carried out using a systematic review method. The literature review was conducted using the scientific databases Web of Science, Science Direct, and Scopus, as well as academic search engines, focusing on studies published between 2020 and 2025, resulting in a total of 86 articles.

Following the systematic review, the Delphi method was employed, with a panel of 50 experts consisting of professors and faculty members from public universities in Iraq, all of whom had over ten years of academic experience.

In the quantitative phase, the study population included faculty members from public universities in Iraq. A random sampling method was used to select participants. The sample size for the quantitative analysis was determined based on the needs of the analysis strategy, the size of the target population, and standard formulas for calculating a statistically valid minimum sample size. It is worth noting that during the operational phase of the study, survey data were collected from 150 faculty members in the quantitative section.

The qualitative data—namely, the indicators of knowledge sharing—were collected through the systematic literature review process, and this step aligned with the Delphi panel methodology. This stage was carried out after the complete extraction of evidence, followed by the classification, organization, and formulation of the evidence into corresponding categories.

In the quantitative phase of this study, data analysis was conducted using hierarchical multiple regression to examine the impact of organizational knowledge sharing dimensions on psychological empowerment among faculty members. Prior to analysis, data screening was performed to check for missing values, normality, multicollinearity, and outliers. Initially,

demographic variables—age, gender, work experience, and job position—were entered into the regression model as independent variables to form the baseline. In the second step, six dimensions of organizational knowledge sharing (individual, organizational, technological/infrastructural, social/interpersonal, environmental/cultural, and barriers/challenges) were added to assess their explanatory power. The assumptions of linearity, homoscedasticity, and independence of errors were verified, and model fit was assessed using ANOVA, R^2, and Adjusted R^2 values. The analysis was performed using SPSS, and statistical significance was determined at $p < 0.05$.

3. Findings and Results

The table below presents the components extracted from the sources.

Table 1. Components of Organizational Knowledge Sharing

No.	Component	References
1	Personal motivation for knowledge sharing	(Ahmed et al., 2020; Arsawan et al., 2022; Javaid et al., 2020; Muhammed & Zaim, 2020)
2	Level of experience and academic expertise	(Javaid et al., 2020; Olan et al., 2022)
3	Attitude toward knowledge sharing	(Funasaki et al., 2025; Kim & Park, 2020; Lei et al., 2021; Zhao et al., 2021; Zheng et al., 2022)
4	Trust in colleagues	(Javaid et al., 2020; Sivakumar et al., 2023)
5	Willingness to engage in academic collaboration	(Goldasteh et al., 2022)
6	Perceived personal benefits of knowledge sharing	(Silva de Garcia et al., 2022; Sudibjo & Prameswari, 2021)
7	Focus on scientific creativity and innovation	(Funasaki et al., 2025; Javaid et al., 2020)
8	Interest in learning and staying updated	(Ahmed et al., 2020; Kim & Park, 2020)
9	Level of communication skills	(Goldasteh et al., 2022; Javaid et al., 2020)
10	Degree of intellectual independence	(Sivakumar et al., 2023; Sudibjo & Prameswari, 2021)
11	University leadership support for knowledge sharing	(Javaid et al., 2020)
12	Access to scientific databases	(Goldasteh et al., 2022; Javaid et al., 2020)
13	Informal knowledge sharing in academic circles	(Ravi & Janodia, 2022; Tiwari, 2022)
14	IT infrastructure	(Arsawan et al., 2022; Fuchs et al., 2020; Zhao et al., 2021)
15	Level of interaction among faculty members	(Arsawan et al., 2022; Goldasteh et al., 2022)
16	Excessive competition among faculty	(Goldasteh et al., 2022; Javaid et al., 2020; Ravi & Janodia, 2022)
17	Existence of university portals for knowledge sharing	(Javaid et al., 2020; Sivakumar et al., 2023)
18	Support for collaborative academic publications	(Gui et al., 2022; Tiwari, 2022)
19	Government support for joint research	(Goldasteh et al., 2022; Sivakumar et al., 2023; Tiwari, 2022)
20	Organizational culture supportive of knowledge sharing	(Arsawan et al., 2022; Funasaki et al., 2025)
21	Lack of motivation for knowledge sharing	(Lei et al., 2021; Zhao et al., 2021)
22	Academic performance evaluation system	(Ahmed et al., 2020; Al-Husseini et al., 2021)
23	Fear of intellectual property theft	(Al-Kurdi et al., 2020; Fauzi, 2023; Zheng et al., 2022)
24	Formality/informality of communications	(Al-Kurdi et al., 2020; Javaid et al., 2020)
25	Organizational (university) structure	(Arsawan et al., 2022; Javaid et al., 2020)
26	National-level scientific policies	(Goldasteh et al., 2022; Tiwari, 2022)
27	Lack of institutional support for collaborative projects	(Javaid et al., 2020; Quarchioni et al., 2022)
28	Number of collaborative research activities	(Al-Husseini et al., 2021; Al-Kurdi et al., 2020)
29	University policies on scientific collaboration	(Al-Husseini et al., 2021; Almuqrin & Mutambik, 2021)
30	Centralization/decentralization in decision-making	(Silva de Garcia et al., 2022; Tiwari, 2022)
31	Security and confidentiality of research data	(Ahmed et al., 2020; Al-Kurdi et al., 2020)
32	Use of academic social networks	(Bhatti et al., 2021; Fischer et al., 2021; Funasaki et al., 2025; Gui et al., 2022)
33	Digital tools for knowledge sharing	(Ahmadizadeh, 2019; Fauzi, 2023; Goswami & Agrawal, 2023)
34	Faculty time constraints for collaboration	(Al-Husseini et al., 2021)
35	Incentive programs for interdisciplinary projects	(Almuqrin & Mutambik, 2021)
36	Intellectual property and copyright regulations	(Bhatti et al., 2021; Goswami & Agrawal, 2023)
37	Impact of globalization on knowledge sharing	(Arsawan et al., 2022; Mehmood et al., 2022; Olan et al., 2022)
38	Lack of infrastructure for interdisciplinary collaboration	(Javaid et al., 2020; Ravi & Janodia, 2022)

39	Strict institutional policies on knowledge dissemination	(Javaid et al., 2020; Ravi & Janodia, 2022)
40	Participation in team-based projects	(Arsawan et al., 2022; Nauman et al., 2022; Shaikh et al., 2023)
41	University ranking systems based on collaborative outputs	(Al-Husseini et al., 2021; Almuqrin & Mutambik, 2021)
42	Existence of internal and external academic networks	(Almuqrin & Mutambik, 2021; Haider et al., 2022)
43	Weakness in IT infrastructure	(Goldasteh et al., 2022; Olan et al., 2022; Ravi & Janodia, 2022)
44	Support for new ideas in academic environments	(Javaid et al., 2020; Ravi & Janodia, 2022)
45	Knowledge management systems	(Al-Saffar & Obeidat, 2020; Sudibjo & Prameswari, 2021)
46	Level of interdisciplinary collaboration	(Nauman et al., 2022; Ravi & Janodia, 2022)
47	International collaboration with other universities	(Al-Husseini et al., 2021; Ravi & Janodia, 2022)
48	Acceptance of knowledge-sharing culture	(Goldasteh et al., 2022; Goswami & Agrawal, 2023; Purwanto et al., 2021)
49	Reward and promotion systems	(Al-Kurdi et al., 2020; Fauzi, 2023)
50	Weak team collaboration culture	(Bhatti et al., 2021; Goswami & Agrawal, 2023; Nauman et al., 2022)
51	Lack of transparency in intellectual property rights	(Mehmood et al., 2022; Sa'adah & Rijanti, 2022)
52	Access to collaborative research software	(Safdar et al., 2021; Shaikh et al., 2023)
53	Availability of open-access platforms	(Shaikh et al., 2023; Zamiri & Esmaeili, 2024)
54	Competition or cooperation among universities	(Fauzi, 2023; Fischer et al., 2021)
55	Research funding and project financing	(Muhammed & Zaim, 2020; Nauman et al., 2022)
56	Membership in academic associations	(Fauzi, 2023; Fischer et al., 2021)
57	Use of email and video conferencing	(Goswami & Agrawal, 2023; Gui et al., 2022)
58	University-industry collaboration	(Ahmed et al., 2020; Haider et al., 2022)
59	Facilitation of knowledge dissemination processes	(Al-Saffar & Obeidat, 2020; Nguyen & Malik, 2022; Purwanto et al., 2021)
60	Academic workshops and seminars	(Safdar et al., 2021; Zamiri & Esmaeili, 2024)
61	Personality type	(Abbas et al., 2022; Javaid et al., 2020; Kim & Park, 2020)
62	Cultural intelligence	(Stoermer et al., 2021)

The final list of components was confirmed using the Delphi technique and expert opinions. This table served as the foundation for designing the research instrument and conducting subsequent statistical analyses.

The Delphi questionnaire was developed using a five-point Likert scale based on components identified in the literature review and was distributed to experts and specialists. They were asked to rate the importance of each component based on their professional judgment and level of experience. Additionally, an open-ended question invited the experts to suggest any new components or propose modifications to existing criteria. To improve the response rate, follow-ups were conducted via telephone. All distributed questionnaires were completed and returned.

At each Delphi round, a Student's t-test was used to evaluate the statistical significance of the average responses. The corresponding tables present significance levels, standard deviations, and mean scores.

In the quantitative phase, data were collected using a questionnaire that combined standardized and researcher-developed items. This included items derived from the qualitative phase related to knowledge-sharing components as well as items measuring psychological empowerment. In this phase, the validity and reliability of the data were assessed using standard psychometric techniques. Construct validity was tested via confirmatory factor analysis (CFA) on the survey data, while reliability was assessed using Cronbach's alpha coefficient for the research variables.

In the first round, the questionnaire was distributed to 50 faculty experts. To evaluate the degree of expert consensus, Kendall's coefficient of concordance (W) was calculated. Results are presented in Table 2.

Table 2. Consensus Evaluation in Round One

Factor	Number	Kendall's W	Description of Consensus	Significance Level
Organizational Knowledge Sharing	62	0.782	Strong	0.000

As shown in Table 3, consensus across all panel members regarding organizational knowledge sharing was both strong and statistically significant. Following the collection of expert feedback, the level of consensus was used to verify the validity of the process and indicators.

In the second round, a five-point Likert scale questionnaire was developed based on the finalized criteria from the first round. Participants were asked to rate each item on a scale from very high importance, high importance, moderate importance, low importance, to very low importance.

The face and content validity of the questionnaire was reviewed and confirmed by subject-matter experts. Telephone calls were made to remind participants that this was a continuation of the previous round. During these calls, the conceptual meaning of each factor was explained, and participants were encouraged to prioritize the most important and influential components of organizational knowledge sharing. A ten-day deadline was set for returning the second-round questionnaires.

After collecting the responses, both mean expert ratings and Kendall's W were recalculated to assess consensus.

Table 3. Consensus Evaluation in Round Two

Factor	Number	Kendall's W	Description of Consensus	Significance Level
Organizational Knowledge Sharing	58	0.835	Very Strong	0.000

As shown in Table 4, consensus among the panel remained strong and statistically significant.

In the third round, the final results from Round Two were shared with the experts, and explanatory notes were provided for each of the components. Experts were invited to recommend merging any criteria with overlapping meanings. After incorporating expert suggestions and merging relevant items, the updated list from Round Two was finalized. A new version of the questionnaire was prepared and distributed.

Participants were asked to re-evaluate the revised list and revise their previous judgments if necessary. Following these modifications, the third-round questionnaire was administered.

After data collection, means, standard deviations, and the statistical significance of the mean responses were calculated and are reported in subsequent sections.

Table 4. Analysis of Organizational Knowledge Sharing Responses in the Third Delphi Round

Component	Very Low	Low	Moderate	High	Very High	Mean	Std. Deviation	Significance
Personal motivation for knowledge sharing	0	0	0	49	1	4.02	0.14142	0.000
Level of experience and academic expertise	0	0	0	2	48	4.96	0.19795	0.000
Attitude toward knowledge sharing	0	0	0	48	2	4.04	0.19795	0.000
Trust in colleagues	0	0	0	2	48	4.96	0.19795	0.000
Willingness for academic collaboration	0	0	0	48	2	4.04	0.19795	0.000
Perceived personal benefits of knowledge sharing	0	0	0	2	48	4.96	0.19795	0.000
Emphasis on scientific creativity and innovation	0	0	0	50	0	4.00	0.00000	0.000
University leadership support for knowledge sharing	0	0	0	1	49	4.98	0.14142	0.000
Informal knowledge sharing in academic circles	0	0	0	48	2	4.04	0.19795	0.000
IT infrastructure	0	0	0	50	0	4.00	0.00000	0.000
Faculty interaction levels	0	0	0	1	49	4.98	0.14142	0.000
Excessive competition among faculty	0	0	0	2	48	4.96	0.19795	0.000
University portals for knowledge sharing	0	0	0	2	48	4.96	0.14142	0.000
Support for collaborative publications	0	0	0	46	4	4.08	0.27405	0.000
Government support for joint research	0	0	0	49	1	4.02	0.14142	0.000
Knowledge-sharing supportive organizational culture	0	0	0	1	49	4.98	0.14142	0.000
Academic performance evaluation system	0	0	0	48	2	4.04	0.19795	0.000
Fear of idea theft	0	0	0	47	3	4.06	0.23990	0.000
University organizational structure	0	0	0	48	2	4.04	0.19795	0.000
National science policies	0	0	0	2	48	4.96	0.19908	0.000
Number of collaborative research projects	0	0	0	49	1	4.02	0.14142	0.000
Use of academic social networks	0	0	0	2	48	4.96	0.19795	0.000
Digital tools for knowledge sharing	0	0	0	48	2	4.04	0.19795	0.000
Incentives for interdisciplinary projects	0	0	0	2	48	4.96	0.19795	0.000
Intellectual property and copyright policies	0	0	0	48	2	4.04	0.19795	0.000
Strict university policies on knowledge dissemination	0	0	0	2	48	4.96	0.19795	0.000
Team project participation	0	0	0	50	0	4.00	0.00000	0.000
University ranking systems based on joint scientific output	0	0	0	1	49	4.98	0.14142	0.000
Internal and external academic networks	0	0	0	48	2	4.04	0.19795	0.000
Support for new ideas in academic settings	0	0	0	50	0	4.00	0.00000	0.000
Knowledge management systems	0	0	0	1	49	4.98	0.14142	0.000

International collaboration with other universities	0	0	0	2	48	4.96	0.19795	0.000
Acceptance of knowledge-sharing culture	0	0	0	2	48	4.96	0.14142	0.000
Lack of transparency in intellectual property rights	0	0	0	46	4	4.08	0.27405	0.000
Access to joint research software	0	0	0	49	1	4.02	0.14142	0.000
Open-access platforms	0	0	0	1	49	4.98	0.14142	0.000
Competition or cooperation among universities	0	0	0	48	2	4.04	0.19795	0.000
Research funding and financial support	0	0	0	47	3	4.06	0.23990	0.000
Membership in academic associations	0	0	0	48	2	4.04	0.19795	0.000
Use of email and video conferencing	0	0	0	50	0	4.00	0.40420	0.000
University-industry collaboration	0	0	0	49	1	4.02	0.14142	0.000
Facilitation of knowledge dissemination processes	0	0	0	2	48	4.96	0.19795	0.000
Academic workshops and seminars	0	0	0	48	2	4.04	0.19795	0.000
Personality type	0	0	0	2	48	4.96	0.19795	0.000
Cultural intelligence	0	0	0	48	2	4.04	0.19795	0.000

As in previous rounds, components with a mean score above 3 were selected as final indicators. As evident, all components in the third Delphi round had mean values above 3 and were thus retained, resulting in a final list of 45 components for organizational knowledge sharing.

Table 5. Kendall's Coefficient for Round Three

Factor	Number	Kendall's W	Description of Consensus	Significance Level
Organizational Knowledge Sharing	45	0.862	Very Strong	0.000

As shown in Table 5, the expert consensus across all components is very strong and statistically significant.

Table 6. Comparison of Expert Consensus Across Delphi Rounds

Factor	Round One	Round Two	Improvement (R2 - R1)	Round Three	Improvement (R3 - R2)
Organizational Knowledge Sharing	0.782	0.835	0.053	0.862	0.027

As shown in Table 6, consensus in Round Two improved compared to Round One, and Round Three showed even greater consensus than Round Two. This improvement is attributed to enhanced interaction between the researcher and experts and more detailed explanations provided to participants. Consensus levels across all rounds confirm the validity and reliability of the Delphi technique applied in this study.

After finalizing the list of components using the three-round Delphi technique, the final set of components was distributed to the panel of experts, and they were asked to categorize these components into primary dimensions. Based on the conceptual meaning of the components, expert opinions, and the related literature, the main dimensions and their corresponding subcomponents for both variables were classified as follows:

Table 7. Categorization of Organizational Knowledge Sharing Components

Subcomponents	Main Dimension
Personal motivation for knowledge sharing	Individual Factors
Level of experience and academic expertise	
Attitude toward knowledge sharing	
Trust in colleagues	
Willingness for academic collaboration	
Perceived personal benefits of knowledge sharing	
Emphasis on scientific creativity and innovation	
Personality type	
Cultural intelligence	
University leadership support for knowledge sharing	Organizational Factors
University organizational structure	
Organizational culture supportive of knowledge sharing	
Academic performance evaluation system	
Facilitation of knowledge dissemination processes	
Incentive programs for interdisciplinary projects	
University portals for knowledge sharing	Technological and Infrastructural Factors
IT infrastructure	
Use of email and videoconferencing	
Knowledge management systems	

Access to joint research software	
Digital tools for knowledge sharing	
Availability of open-access platforms	
Faculty interaction levels	Social and Interpersonal Factors
Number of collaborative research activities	
Membership in academic associations	
International collaboration with other universities	
Participation in team-based projects	
Informal knowledge sharing in academic settings	
Internal and external academic networks	
Support for new ideas in academic environments	
Role of academic workshops and seminars	
National-level scientific policies	Environmental and Cultural Factors
Government support for joint research	
Competition or cooperation among universities	
Research funding and financing	
Acceptance of knowledge-sharing culture	
Intellectual property and copyright policies	
Support for collaborative academic publications	
University-industry collaboration	
University ranking systems based on joint scientific output	
Fear of idea theft	Barriers and Challenges to Knowledge Sharing
Excessive competition among faculty	
Strict university policies on knowledge dissemination	
Lack of transparency in intellectual property rights	

In this section, the individual profile of each respondent was analyzed using univariate tables. Descriptive statistics such as gender, job position, and work experience were summarized and presented in both tabular and graphical formats.

Table 8. Frequency Distribution of Participants

Academic Rank	Frequency	Age Group	Frequency	Work Experience	Frequency	Gender	Frequency
Lecturer	63	Under 35	14	Less than 5 years	25	Female	42
Assistant Professor	61	35–40 years	68	5–10 years	45	Male	108
Associate Professor	14	40–45 years	45	Over 10 years	80	Total	150
Professor	12	Over 45 years	23	—	—	—	—
Total	150	Total	150	Total	150	—	—

To examine the impact of knowledge sharing on psychological empowerment, hierarchical regression analysis was employed.

In the first stage, psychological empowerment was entered as the dependent variable, while age, gender, work experience, and job position were entered as independent variables. The results of this base model are presented below.

Table 9. ANOVA Analysis for Age, Gender, Work Experience, and Job Position (Base Model)

Model	Sum of Squares	Degrees of Freedom	Mean Square	F Statistic	Significance
Regression	2.893	4	0.723	0.968	0.427
Residual	108.391	145	0.748		
Total	111.284	149			

Table 10. Coefficients for Age, Gender, Work Experience, and Job Position (Base Model)

Model	B	Std. Error	Beta	t	p
Constant	3.123	0.408		7.657	0.000
Gender	0.209	0.156	0.111	1.345	0.181
Age	0.013	0.106	0.014	0.128	0.899
Work Experience	0.060	0.124	0.052	0.483	0.630
Job Position	-0.065	0.070	-0.080	-0.924	0.357

As shown in the tables above, the base model is not statistically significant, and none of the demographic variables (age, gender, work experience, job position) demonstrate a significant relationship with psychological empowerment.

In the next stage, the final model was tested by adding the six dimensions of organizational knowledge sharing. The results are shown in Tables 11 and 12.

Table 11. ANOVA Analysis for the Final Model

Model	Sum of Squares	Degrees of Freedom	Mean Square	F Statistic	Significance
Regression	110.628	10	11.063	2343.246	0.000
Residual	0.656	139	0.005		
Total	111.284	149			

Table 12. Coefficients for the Final Model

Model	B	Std. Error	Beta	t	p
Constant	-0.011	0.039		-0.283	0.777
Gender	-0.032	0.013	-0.017	-2.505	0.013
Age	0.019	0.009	0.020	2.280	0.024
Work Experience	0.013	0.010	0.011	1.286	0.201
Job Position	0.006	0.006	0.008	1.115	0.267
Individual Factors	0.098	0.044	0.099	3.209	0.000
Organizational Factors	0.249	0.045	0.250	5.563	0.000
Technological & Infrastructural Factors	0.175	0.037	0.179	4.672	0.000
Social & Interpersonal Factors	0.112	0.049	0.113	4.267	0.000
Environmental & Cultural Factors	0.173	0.047	0.174	3.685	0.000
Barriers & Challenges to Knowledge Sharing	0.194	0.029	0.195	6.728	0.000

$R = 0.997$, $R^2 = 0.994$, Adjusted $R^2 = 0.994$, Standard Error of Estimate = 0.06871

To evaluate the impact of organizational knowledge sharing on the psychological empowerment of faculty members in Iraq's public universities, hierarchical regression was applied.

The Adjusted R^2 of 0.994 and R^2 of 0.994 indicate that the model has very high explanatory power in accounting for variations in psychological empowerment. The standard error of 0.06871 further confirms the high accuracy of the model.

Gender had a significant negative effect on psychological empowerment ($\beta = -0.017$, $p = 0.013$), suggesting that gender differences influence perceived psychological empowerment.

Age had a positive and significant relationship with psychological empowerment ($\beta = 0.020$, $p = 0.024$), indicating that psychological empowerment increases with age.

Work experience and job position did not show significant relationships ($p > 0.05$).

The results of the hierarchical regression analysis showed that all six dimensions of organizational knowledge sharing had positive and significant effects on psychological empowerment:

- Organizational factors ($\beta = 0.250$, $p < 0.001$) were the strongest predictors.
- Barriers and challenges ($\beta = 0.195$, $p < 0.001$) had a positive impact, interpreted inversely—i.e., reducing barriers leads to increased empowerment.
- Technological and infrastructural factors ($\beta = 0.179$, $p < 0.001$) included technological tools, knowledge management systems, communication platforms, and digital infrastructure.
- Environmental and cultural factors ($\beta = 0.174$, $p < 0.001$) referred to values, norms, cultural climate, and social characteristics of the workplace.
- Social and interpersonal factors ($\beta = 0.113$, $p < 0.001$) included colleague relationships, trust, collaboration, mutual support, and internal social capital.
- Individual factors ($\beta = 0.099$, $p < 0.001$) related to personal traits, attitudes, motivations, and willingness to share knowledge.

4. Discussion and Conclusion

This study aimed to explore the impact of organizational knowledge sharing on psychological empowerment among faculty members in Iraq's public universities. Using a hierarchical regression model, we first tested the predictive power of individual demographic factors and then included six dimensions of organizational knowledge sharing—individual, organizational,

technological/infrastructural, social/interpersonal, environmental/cultural, and barriers/challenges—to evaluate their influence on psychological empowerment.

Initial findings indicated that demographic variables—namely, age, gender, work experience, and job position—did not significantly predict psychological empowerment in the base model. This result is aligned with prior research that de-emphasizes static demographic characteristics in favor of dynamic organizational and interpersonal factors as stronger predictors of empowerment (Mehmood et al., 2022; Silva de Garcia et al., 2022; Tiwari, 2022). However, in the final model, gender and age did show statistically significant relationships, with age positively predicting empowerment and gender exhibiting a minor but significant negative effect. This suggests that psychological empowerment increases with experience and maturity, possibly due to enhanced self-efficacy and professional identity over time, while gender dynamics may still influence faculty experiences in patriarchal or hierarchically structured institutions.

More importantly, the final model demonstrated that all six identified dimensions of knowledge sharing behavior significantly and positively predicted psychological empowerment, with organizational factors emerging as the most powerful predictor. This aligns with research emphasizing that supportive organizational structures and cultures—such as leadership encouragement, participatory evaluation systems, and interdepartmental collaboration—are essential to fostering an empowered workforce (Fauzi, 2023; Sivakumar et al., 2023; Zamiri & Esmaeili, 2024). Faculty members are more likely to feel competent, autonomous, and impactful when they perceive their university as an environment that values and facilitates the exchange of knowledge.

Barriers and challenges to knowledge sharing were also found to significantly affect empowerment, with the model coded in such a way that reduced barriers increased empowerment. This finding resonates with earlier studies that highlight the detrimental impact of idea theft, excessive competition, and lack of clarity around intellectual property rights on faculty motivation and psychological well-being (Al-Kurdi et al., 2020; Fawzi, 2023). The data suggest that institutions which minimize these barriers through transparent policies and ethical standards are more likely to cultivate psychologically empowered educators.

Technological and infrastructural factors also demonstrated a strong positive effect. This includes access to digital platforms, knowledge management systems, research software, and video conferencing tools. Prior literature underscores that technological readiness enhances both the quantity and quality of knowledge flows in academic institutions (Funasaki et al., 2025; Zhao et al., 2021). Our findings support the view that technology not only facilitates the mechanics of sharing but also contributes to a culture of openness and accessibility, which in turn nurtures psychological empowerment.

Social and interpersonal factors, including trust among colleagues, collaborative engagements, informal interactions, and social capital, were shown to significantly influence empowerment. This is consistent with the notion that meaningful interpersonal relationships and professional communities of practice empower faculty by providing emotional support, reinforcing professional identity, and offering platforms for recognition and feedback (Sa'adah & Rijanti, 2022; Silva de Garcia et al., 2022; Sudibjo & Prameswari, 2021). Institutions that encourage peer interaction, mentorship, and collaborative problem-solving appear better equipped to support psychological empowerment.

Environmental and cultural factors—such as alignment with national science policies, research funding availability, cultural acceptance of knowledge sharing, and international collaboration—also positively affected psychological empowerment. This suggests that the broader academic ecosystem plays a vital role in enabling individual empowerment. When faculty operate within an environment that supports academic exchange, funds collaborative research, and values open access to information, they are more likely to feel empowered in their roles. This aligns with earlier conclusions drawn by researchers such as Mahmoud et al. (2022) and Haider et al. (2022), who emphasized the importance of national academic culture and global integration in fostering organizational effectiveness (Haider et al., 2022; Mehmood et al., 2022).

Lastly, individual factors—while having the smallest effect size—were nonetheless significant predictors of empowerment. Elements such as personal motivation, willingness to collaborate, learning orientation, and cognitive traits like cultural intelligence contributed meaningfully to empowerment levels. These results reflect the literature suggesting that intrinsic motivation and intellectual openness are foundational to academic vitality (Ahmed et al., 2020; Muhammed & Zaim, 2020). Although these traits may not override structural and cultural influences, they remain critical levers of agency within academic settings.

Taken together, the results of this study support a holistic understanding of psychological empowerment as a multidimensional construct, influenced not only by institutional policies and digital infrastructure but also by interpersonal dynamics, cultural context, and individual attitudes. The high explanatory power of the final model (Adjusted $R^2 = 0.994$) confirms that organizational knowledge sharing practices, when implemented strategically across these six domains, can substantially enhance psychological empowerment among faculty members.

These findings extend the literature by confirming the positive impact of knowledge-sharing dimensions identified in prior work, while also providing contextual specificity for higher education in Iraq. While studies in developed nations have long emphasized the role of collaborative environments and digital tools in empowering educators (Kim & Park, 2020; Lei et al., 2021), our study contributes empirical evidence from a developing context, where systemic barriers and infrastructure limitations are more pronounced. This makes the demonstrated effect sizes even more compelling and suggests that even incremental improvements in knowledge-sharing systems can yield significant psychological returns.

The significant role of organizational and cultural enablers also reinforces the view of universities as knowledge-intensive institutions that must continuously evolve in structure and policy to remain competitive and effective. In Iraq, where public universities are under pressure to modernize, findings from this study offer a roadmap for embedding empowerment within institutional frameworks via targeted investments in knowledge-sharing practices.

This study, while comprehensive, is not without limitations. First, the research was limited to public universities in Iraq, and thus the findings may not be generalizable to private institutions or universities in other regions. Second, the use of self-report questionnaires may introduce social desirability bias, as faculty members may overstate their participation in knowledge-sharing practices or their sense of empowerment. Third, although the Delphi technique enhanced construct validity, the cross-sectional nature of the quantitative analysis limits the ability to make causal inferences. Additionally, the study did not examine disciplinary differences or administrative contexts that might mediate the relationship between knowledge sharing and empowerment.

Future studies could expand the sample to include private universities, technical institutions, and academic centers in other countries for comparative analysis. Longitudinal research designs would also be valuable in examining how changes in knowledge-sharing structures influence empowerment over time. Further research could incorporate qualitative interviews or focus groups to gain deeper insights into the cultural and emotional dimensions of knowledge sharing. Moreover, future models could include moderating variables such as leadership style, faculty workload, or digital literacy, which may refine our understanding of how empowerment is shaped.

Universities should prioritize establishing a supportive organizational culture that encourages transparency, collaboration, and intellectual generosity. Investments in IT infrastructure and digital tools must be accompanied by training and policy development to ensure equitable access. Leaders should actively reduce institutional barriers to knowledge sharing by promoting ethical standards and providing incentives for collaboration. Finally, initiatives that build interpersonal trust and cross-disciplinary dialogue—such as workshops, joint projects, and academic communities of practice—can create a more empowered, engaged, and innovative academic workforce.

Ethical Considerations

All procedures performed in this study were under the ethical standards.

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Conflict of Interest

The authors report no conflict of interest.

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