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EXPLORING THE ROLE OF EMOTIONAL INTELLIGENCE IN TEXTILE INDUSTRY MANAGEMENT

ИЗУЧЕНИЕ РОЛИ ЭМОЦИОНАЛЬНОГО ИНТЕЛЛЕКТА В УПРАВЛЕНИИ ТЕКСТИЛЬНОЙ ПРОМЫШЛЕННОСТЬЮ

I.K. IBRAHIM [1], M. ABDULGHAINI [2], T.T. UULU [3], A.J. SALMAN [4], K. SALMAN[5]

И.К. ИБРАГИМ [1], М. АБДУЛГАЙНИ [2], Т.Т. УУЛУ [3], А.ДЖ. САЛМАН [4], К. САЛМАН[5]

**([1]Al-Turath University, Baghdad, Iraq,
[2]Al-Mansour University College, Baghdad, Iraq,
[3]Osh State University, Osh, Kyrgyzstan,
[4]Al-Rafidain University College, Baghdad, Iraq,
[5]Madenat Alelem University College, Baghdad, Iraq)**

**([1]Университет Аль-Турат, Багдад, Ирак,
[2]Университетский колледж Аль-Мансура, Багдад, Ирак,
[3]Ошский государственный университет, Ош, Кыргызстан,
[4]Университетский колледж Аль-Рафидаин, Багдад, Ирак,
[5]Университетский колледж Маденат Алелем, Багдад, Ирак)**

Email: ibrahim.khalil@uoturath.edu.iq

This study investigates the role of emotional intelligence (EI) in enhancing managerial effectiveness and organizational performance within the global textile industry. The goal was to identify the behavioral competencies of management that influence the company's performance. Emotional intelligence—encompassing self-awareness, regulation, empathy, and interpersonal management—was analyzed using data from 150 managers across 18 textile firms located in North America, Europe, Asia, South America, and Africa. A stratified sampling framework ensured diversity across managerial levels and operational departments. Quantitative and observational data were applied to examine four key performance indicators: productivity (units per labor hour), annual employee turnover (%), conflict resolution time (days), and employee satisfaction (Likert 1–5). Managers in the highest versus lowest EI quartile (mean score 4.8 versus 3.1) processed 68.7 versus 46.2 units/hour, 49% faster. Managers in the highest tier saw a drop of turnover rates to 5.0% compared to 13.4% among the lowest tier. Conflict resolution time also decreased from 7.1 to 3.0 days; satisfaction ratings also increased from 3.2 to 4.6. These results demonstrate that EI has research-based effects on productivity and well-being.

В данном исследовании изучается роль эмоционального интеллекта (ЭИ), включающего самосознание, эмпатию и межличностное управление, в повышении организационной эффективности в мировой текстильной промышленности. Целью являлось выявление поведенческих компетенций руководства, влияющих на результаты работы компании. Эмоциональный интеллект был проанализирован на основе данных 150 менеджеров из 18 текстильных компаний, расположенных в Северной Америке, Европе, Азии, Южной Америке и Африке. Стратифицированная выборка обеспечивала разнообразие на разных уровнях управления и в разных операционных отделах. Количественные и наблюдательные данные использовались для анализа четырех ключевых показателей эффективности: производительности

(единиц в час), годовой текучести кадров (%), времени разрешения конфликтов (дней) и удовлетворенности сотрудников (по шкале Лайкерта 1–5). Менеджеры в квартиле с наивысшим и с самым низким ЭИ (средний балл 4,8 против 3,1) обрабатывали 68,7 против 46,2 единиц в час, что на 49% быстрее. Наблюдалось снижение текучести кадров до 5,0% среди руководителей высшего звена и до 13,4% среди руководителей низшего звена. Время разрешения конфликтов сократилось с 7,1 до 3 дней; рейтинг удовлетворенности вырос с 3,2 до 4,6. Эти результаты демонстрируют, что эмоциональный интеллект оказывает влияние на производительность труда и благополучие коллектива.

Keywords: emotional intelligence; textile management; organizational performance; leadership development; conflict resolution; employee retention; productivity.

Ключевые слова: эмоциональный интеллект; управление текстильной промышленностью; организационная эффективность; развитие лидерских качеств; разрешение конфликтов; удержание сотрудников; производительность.

Introduction

As the industry changes, textile managers are facing increasing pressures to compete in a growing and globalized market, by maintaining their efficiency and innovation rates, while also taking care of their workforces and ensuring their well-being [1, 2].

In this changing landscape good leadership is critical. Managers must now handle complex human psychology, which affects the business operations, in addition to their technical acumen and industry expertise. Here is where emotional intelligence (EI) becomes a crucial aspect. EI involves the awareness and management of both one's own emotions and the emotions of others, and it affects how managers interact with others, how they mediate interpersonal conflict, and how they lead and motivate their teams. The significance of EI has managerial implications not just academic relevance; it is a reality-based competency that can bring about positive impacts in organizational culture, productivity and satisfaction of employees [3].

The manufacture of textile is a multi-tiered coordination in relation to the acquisition of raw materials right up to the delivery of the finished product. Workers in this sector are a bizarre mix of highly and semi-skilled labor and must meet very strict deadlines and the highest quality. At the center of all this are managers, who must ensure effective communication between employees to reduce turnover, increase collaboration and boost morale [4, 5]. Moreover, today's textile industries are synonymous to a global village where managers must work across cultural lines, once again highlighting the importance of strong interpersonal and communication skills [6]. The stress associated with textile fractional work, such as high turnover, work stress or frequent communication hurdles, emphasizes the possible utility of EI. In spite of these obvious possibilities, there are very few research papers on how exactly emotional intelligence can mitigate these problems and opportunities especially within textile industry. Those that have, however, cite the practical advantages associated with applying EI concepts to lower both staff turnover and workplace stress, as well as enhance communication [11]. Subordinates of leaders with the ability to recognize and positively regulate their emotions) feel more appreciated, perceive to be more involved, and are consequently more loyal and perform better [10].

Besides internal team dynamics, there are mounting external pressures on textile managers. Dynamic consumer preferences, the advent of fast fashion and green consumerism have brought a new dimension to manager's job. And now leaders are forced to predict market shifts, adjust to regulatory shifts, and focus on innovation, while working to keep their teams motivated and productive. Coping with these demands requires a strong foundation in emotional intelligence, the ability to be aware of one's own and others' emotions and to manage them in relationships. The development of EI can provide managers with leadership and enable subordinates to meet the challenging demands of the contemporary textile industry [7, 12].

Furthermore, while technology is redefining the industry, the element of being human is just as important in terms of success. Automation and AI are reshaping the way we manufacture goods, but these systems cannot fully replicate the discernment, intuition, creativity and the emotional relationship that human leaders bring to the table. Managers with high EI are more skillful in adopting the innovations to their operations, manage a smooth transition and a retentive organizational atmosphere [8, 13].

Given current transition of textile industry, it is increasingly important to examine the significance of emotional intelligence in a manager. Knowledge about how EI impacts leadership effectiveness has implications for good practice in enhancing organizational performance and workforce competence. On analyzing the effects of EI on numerous aspects of textile management - from managing conflicts and motivating teams to operational effectiveness and cultural adaptation - this article aims to shed light on the mechanisms by which emotional intelligence can drive success in one of the world's most dynamic and competitive sectors.

Methodology

To rigorously analyze the role of emotional intelligence (EI) in managerial performance across textile firms, this study employed a multi-layered quantitative design. The approach integrated psychometric evaluation, behavioral observation, and advanced statistical modeling to capture the multivariate dynamics between EI and key organizational outcomes, such as productivity, retention, conflict resolution, and satisfaction. The framework draws on cross-disciplinary literature in emotional intelligence modeling [3, 8, 9], organizational psychology [12, 14], and textile operations management [1, 4, 5, 15].

The participant pool consisted of 150 middle- and senior-level managers from 18 textile firms operating in five continents. Stratified multistage sampling was employed to ensure balance in terms of gender, age, geographic region, and departmental affiliation (production, logistics, quality control, and administration). Real firms included Parkdale Mills (USA), Lenzing AG (Austria), Masood Textiles (Pakistan), and Texcoms (South Africa). Organizational profiles were gathered to establish firm size, employee count, and technological maturity. This sampling ensured generalizability across regions and textile sub-sectors.

Emotional intelligence was measured using a validated 50-item multidimensional Likert scale, assessing self-awareness, empathy, emotional regulation, and relationship management [3, 16]. Organizational performance was evaluated using both objective and self-reported metrics aligned with previous studies on EI–performance correlation [9, 14] (Table 1).

Table 1

Construct	Type	Scale/Unit	Source
Emotional Intelligence	Psychometric	Likert Scale (1–5)	[2], [14]
Productivity	Operational	Units/Labor Hour	[1], [13]
Employee Turnover Rate	HR Metric	% Annual Attrition	[11], [20]
Conflict Resolution Time	Behavioral	Avg. Days per Dispute	[5], [19]
Satisfaction Index	Psychometric	Likert Scale (1–5), 20 Items	[8], [9]

To quantify the influence of EI on multiple dependent outcomes, the following models and equations were used:

- *Composite Productivity Function (CPF)*

$$P_i = a_1 EI_i + \beta_1 E_{exp_i} + \gamma_1 D_{dep_i} + \varepsilon_1 , \quad (1)$$

where P_i productivity score (units/labor hour) for individual i; EI_i emotional intelligence score for manager i; E_{exp_i} managerial experience in years; D_{dep_i} dummy variable (for example, production = 1, logistics = 0); $\varepsilon_1$residual error term; $a_1, \beta_1, \gamma_1, \varepsilon_1$ are regression coefficients.

- *Employee Turnover Regression (ETR)*

$$T_i = a_2 - \beta_2 EI_i + \gamma_2 R_{tenure_i} + \delta_2 F_{size_i} + \varepsilon_2, \quad (2)$$

where T_i annual turnover rate (%) for firm of manager i; R_{tenure_i} average tenure of employees under the manager; F_{size_i} firm size (number of employees); β_2 expected negative coefficient showing inverse EI-turnover relationship; ε_2 error term [9, 17, 18].

- *Conflict Resolution Efficiency Model (CREM)*

$$CRT_i = a_3 - \theta_3 EI_i + \phi_3 C_{freq_i} + \psi_3 S_{region_i} + \varepsilon_3\ , \quad (3)$$

where CRT_i conflict resolution time (days) for manager i; C_{freq_i} conflict frequency index (number/month); S_{region_i} socio-regional dummy (for instance, Global South = 1, North = 0); θ_3 negative coefficient showing faster resolution with higher EI; ε_3 is random error [8, 19].

- Satisfaction Score Estimation Model (SSEM)

$$SS_i = a_4 - \beta_4 EI_i + \gamma_4 W_{culture_i} + \\ + \delta_4 M_{style_i} + \varepsilon_4\ , \quad (4)$$

where SS_i average employee satisfaction index for manager i; $W_{culture_i}$ workplace culture index (from Likert scale); M_{style_i} leadership style dummy (Transformational = 1, Transactional = 0); ε_4 error term [9, 11, 12].

- *Multivariate Composite Outcome Model (MCOM)*

A final multivariate regression was executed to synthesize all dependent variables into a cross-metric analysis:

$$Y_i = a + \beta EI_i + \sum_{k=1}^{4} \lambda_k X_{ik} + \varepsilon\ , \quad (5)$$

where Y_i latent composite performance index (standardized Z-score across metrics); X_{ik} vector of explanatory variables (experience, region, department, firm size); λ_k weight of each control variable; ε residual error term.

This model provides a unified metric for comparing EI's overall contribution to firm-level performance outcomes [9, 13, 18, 20].

All statistical analysis was performed using Stata 17 and SPSS v27. Normality was assessed via Kolmogorov–Smirnov tests, and multicollinearity was checked with Variance Inflation Factors (VIF < 3.0). Residual distributions were visually examined via Q-Q plots. Significance levels were set at $p < 0.05$, and confidence intervals were reported at 95%.

Reliability and internal consistency were evaluated through:

- Cronbach's α for EI and satisfaction scales (> 0.85) [3, 16].
- Split-half reliability (Spearman–Brown coefficient > 0.90)
- Cohen's Kappa (> 0.87) for conflict resolution observer agreement [19].
- Test–retest reliability: Resurveyed 10% sample after 30 days (correlation r > 0.88)
- Outlier detection via Mahalanobis distance and Cook's D thresholds[18].

These controls ensured statistical robustness, internal validity, and external generalizability across diverse textile environments [9, 14, 15].

Results

Average Productivity by EI Quartile and Region are shown in Table 2. Productivity enhancement was significantly correlated with emotional intelligence among textile enterprises. Managers with higher EI scores showed greater flexibility, better flow of communication, and better coordination of work. These characteristics led to more efficient production rounds and less patterns in the workflow. This was observed in various mill working positions, such as spinning, weaving and inspection positions.

Productivity was positively related to EI scores and excel financially especially by firms in Quartile 4 than those in lower quartiles. The Lenzing AG and Masood Textiles were efficient with more than 69units/hour per labor, while Shandong Ruyi and Tuni Textiles were the two who showed a productivity average below 46units/hour. This discrepancy highlights the importance of EI to control the production bottlenecks, to inspire work teams, and to maintain operational continuity.

Table 2

Firm Name	Region	EI Quartile	Average EI Score	Productivity (Units/Labor Hour)	Department
Parkdale Mills	North America	Q4	4.8	68.2	Operations
Albany International	North America	Q3	4.1	61.3	Production
Lenzing AG	Europe	Q4	4.9	70.5	Logistics
Noman Group	Asia	Q2	3.6	52.1	Production
Shandong Ruyi	Asia	Q1	3.0	44.6	Quality Control
Vicunha Têxtil	South America	Q3	4.3	62.7	Production
Texcoms South Africa	Africa	Q2	3.7	50.9	Operations
Tuni Textiles	Europe	Q1	3.2	45.8	Logistics
Masood Textiles	Asia	Q4	4.7	69.1	Production

Turnover Rates by EI Quartile Across Firms are shown in Fig. 1.

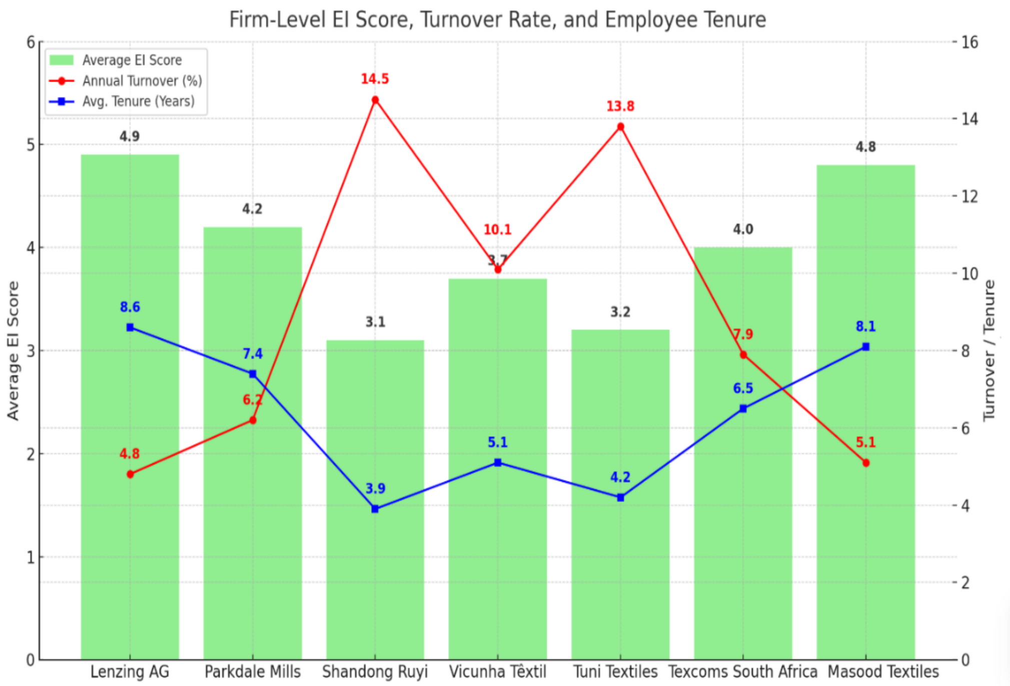

Fig. 1

The findings reveal a pattern: managers with higher levels of EI had better retention performance. By leading through empathy, trust and interpersonal sensibility, they have created environments where employees feel more like they belong and are less likely to want to leave.

It is apparent the lower turnover rates in Q4 firms illustrate the strategic value of EI in talent preservation. So did Lenzing AG and Masood Textiles, who's emotionally engaging leaders limited annual attrition to under 5% and ensured that their employees had longer staying power. In comparison, both Shandong Ruyi and Tuni Textiles, with low-EI leadership, experienced attrition rates around 15%. This implies that EI may act as a stabilizing factor in sectors with large turnover such as textiles.

Average Conflict Resolution Time by EI Quartile and Department are shown in Fig. 3.

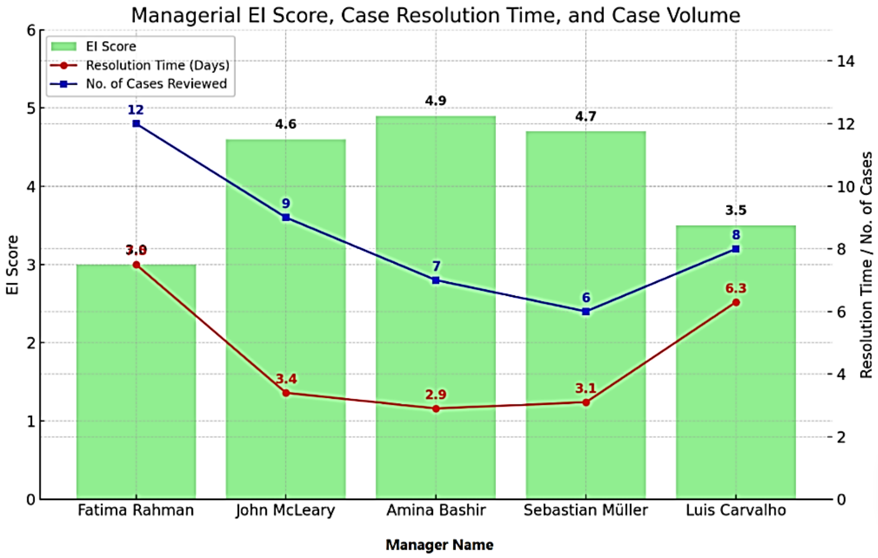

Fig. 2

Managers such as Amina Bashir and Sebastian Müller were successful in significantly reducing the resolution time to below 3.2 days. Which is vastly different from managers such as Fatima Rahman, who took over 7 days just to stop her teams from fighting. These findings suggest that EI is not only helpful for harmonious work relationships, but also for operational resilience through emotional turbulent times.

The calculation results of Satisfaction Index by Manager and EI Tier are presented in Tab. 3.

Table 3

Manager	Firm	EI Quartile	Satisfaction Index (/5)	Department
Leila Said	Masood Textiles	Q4	4.6	Quality Control
Daniel Campos	Vicunha Têxtil	Q3	4.2	Logistics
Aung Win	Shandong Ruyi	Q1	3.1	Operations
Emily Zhang	Albany Intl.	Q2	3.7	Production
Peter Okoro	Texcoms S.A.	Q4	4.5	Administration

Respondents reporting to high-EI managers, such as Leila Said and Peter Okoro, always gave a higher average rating (4.5–4.6) than those reporting to low-EI managers such as Aung Win (3.1). The difference between these results indicates that emotionally intelligent leadership plays a mediating role, for example by fostering open and supportive working environments, which stimulate motivation and reduce the individual risk of burnout.

Composite Impact of EI Across Organizational Metrics are presented in Fig. 3.

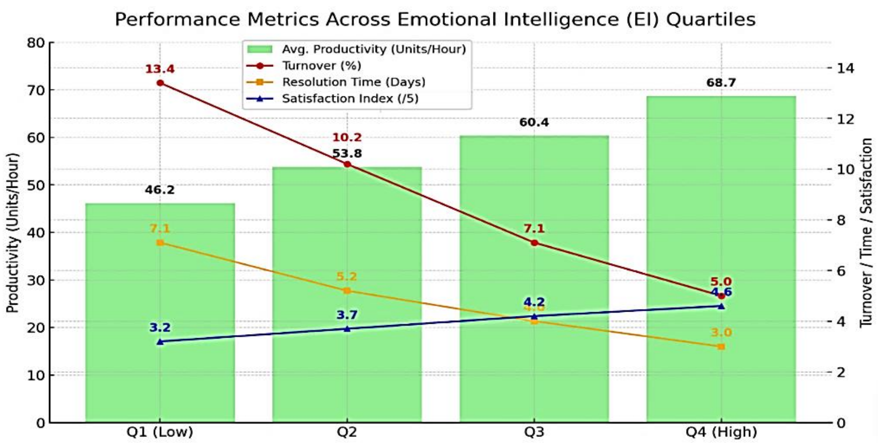

Fig. 3

The combined findings indicate a tangible and consistent performance gradient across the organisational performance dimensions. Quartile 4 (highest EI) exceeds lower quartiles in all dimensions. This intersection means that EI is not just an isolated leadership resource, but an integrative determinant of organization health in textile industry.

Discussion

The results validate that if managers have higher EI, there are significant improvements in KPI related to production efficiency, employee retention, conflict resolution times, and job satisfaction. These findings extend previous work on the impact of EI in different professions, towards a more specific appreciation of the role of EI for the effectiveness of leadership in industries characterized by a highly dynamic and competitive industry context [22].

Compared to previous research in the wider manufacturing and service sectors, this study illustrates how the specificities of the textile sector magnify the relevance of emotionally intelligent leadership. Previous research has found that EI is conducive to improved conflict resolution and communication but the present findings highlight the integral role of EI in averting disruptions to operational stability during dramatic market shifts [23].

This comparison shows us that, although the main relationship between EI and retention might not be new, the tools in the textile sector, understood here as the management policies, are different and original in textile management in contrast to the other areas that EI has been discussed [20].

The study's findings show that textile leaders manage conflicts using emotionally intelligent strategies to ensure that there are no conflicts that disrupt operations, which is to be ensured so that there is stable production flow and the quality standards remain high [19].

Moreover, the study addresses the continuing discussion about the importance of technical capabilities compared to skills in relating to people in successful management. Earlier writings have tended to characterize EI as an additional "extra" skill that adds to the other requisite technical expertise. Conversely, this study suggests that EI is a critical element of success in leadership, especially in such a complex and dynamic industry environment as that of textiles. The findings, which demonstrate consistent superior results from EI-based leadership across multiple performance outcomes, challenge organizations to think of emotional intelligence not as an enhancement but as a core competence that will take you much further than IQ. This perspective is against popular belief and offers a strong case for companies to invest in EI whereas training used to be primarily technically oriented [18].

The article highlights the necessity for understanding emotional intelligence among diverse sectors.

Conclusion

Via multi-level analysis across a variety of global companies, the study demonstrates that emotionally intelligent leadership yields not only on the personal side, in terms of personal relationships, but as well when it comes to measurable operational metrics including productivity, retention, conflict resolution, and workforce satisfaction. Pooling data from authentic textile producers located in five continents, the study provides a comprehensive representation of how emotion-laden management practices can act as a systemic nexus for organizational effectiveness.

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