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UNIVERSITY OF PÉCS

**Integrating Organizational Excellence and Circular
Economy for Sustainable Business Performance**

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Abstract

This PhD thesis explores the integration of Organizational Excellence and Circular Economy principles as a pathway to enhance sustainability in organizations. Using a quantitative approach, the research investigates 449 private sector organizations in Jordan to understand how the alignment of Circular Economy practices with organizational strategies can drive sustainability. The study employs surveys and statistical analyses, including Cronbach's alpha and regression models, to assess the relationships between Circular Economy implementation and various organizational outcomes, such as innovation, efficiency, and customer satisfaction. Key findings indicate that top management support and well-aligned operations are crucial enablers for successful Circular Economy integration, significantly influencing environmental sustainability and overall organizational performance.

The research contributes both theoretically and practically by providing a framework for integrating sustainability into business excellence models like the EFQM, highlighting the importance of Circular Economy in meeting the United Nations Sustainable Development Goals (SDGs), particularly SDG 12 on sustainable consumption and production patterns. The study offers actionable recommendations for policymakers and organizational leaders, emphasizing the need for a systemic approach to embedding Circular Economy principles within operational and strategic processes to achieve long-term sustainability and competitive advantage.

Keywords:

Organizational Excellence, Circular Economy, Sustainability, Innovation, EFQM

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Table 1 Questionnaire Questions categorizes per the EFQM 2020 Model's pillars. Source: Circular Economy Lens, Page 1-3 12

1.0. Introduction

In recent years, the alignment between organizational excellence and the principles of the Circular Economy has emerged as a critical area of research. This PhD thesis explores this nexus with a focus on how such alignment can drive sustainability, both within organizations and on a broader global scale. The significance of this research lies in its attempt to bridge traditional notions of organizational excellence with contemporary sustainability demands, as underscored by global trends like the United Nations Sustainable Development Goals (SDGs). The study employs the framework of the European Foundation for Quality Management (EFQM), which in its 2020 iteration integrates sustainability directly into its criteria, thereby reinforcing that true excellence is inseparable from sustainable practices .

Despite the well-established role of organizational excellence models in achieving outstanding performance and stakeholder satisfaction, there remains a notable gap in how these models incorporate sustainability comprehensively. Traditionally, organizational excellence has focused on quality, efficiency, and stakeholder value. However, the evolving global landscape and the pressing need for sustainable development challenge organizations to extend their focus beyond immediate performance outcomes to include long-term sustainability . This thesis addresses this research gap by exploring how Circular Economy principles, a vital component of sustainability, can be integrated within organizational excellence frameworks to create a more resilient and adaptable business model.

Jordan provides a compelling context for this research. With a private sector that is significantly impacted by resource constraints and a burgeoning commitment to sustainable practices, Jordan offers a microcosm for examining how Circular Economy principles can be practically applied across diverse sectors. The country's Vision 2025 emphasizes sustainable development, further underscoring the relevance of this research in aligning national development goals with the global sustainability agenda . Moreover, by focusing on private sector organizations in Jordan, this thesis aims to deliver insights that are both globally relevant and locally applicable, thereby contributing to the broader discourse on sustainable business practices in emerging economies. While previous research has explored various facets of sustainability and organizational excellence independently, this study advances the literature by specifically examining their intersection within the framework of the Circular Economy. The thesis builds on existing

research by investigating how the implementation of Circular Economy practices impacts organizational performance metrics such as innovation, efficiency, and customer satisfaction. This is achieved through a mixed-methods approach that includes both a comprehensive literature review and an empirical analysis of 449 private sector organizations in Jordan, using statistical tools like SPSS to validate findings .

In summary, this research contributes to both theory and practice by providing a structured model that integrates Circular Economy principles into organizational excellence frameworks. By doing so, it offers a pathway for organizations to achieve sustainability goals while maintaining high performance and stakeholder satisfaction. The findings will have implications for policymakers, industry leaders, and sustainability advocates seeking to foster a more sustainable and resilient global economy.

1.1. Research Problem

The aim of the research is to identify the alignment between organizational excellence and Circular Economy and how the intended alignment may drive the Circular Economy performance and sustainability of organizations and the globe forward.

The idea is important because organizational excellence is an old concept where many organizations are focusing on, whether in the private or public or NGO sectors, while taking into consideration that such a focus will lead them to outstanding performance results and stakeholders' satisfaction (which are the main aims of organizational excellence through the different international models like European Foundation for Quality Management, Malcolm Baldrige ...).

However, as per the new trends in the world linked to the United Nations sustainable development goals (United Nations Sustainable Development Goals 2015-2030) and the developments of excellence models like in European Foundation for Quality Management Model 2020 to embed sustainability and United Nations Sustainable Development Goals more clearly; to emphasize the fact that there is no excellence without sustainability; Its clear in the new European Foundation for Quality Management model 2020 that the focus on sustainable

value needs to be managed from initial stages of creating the value, to co-creation of value with stakeholders, to delivery and throughout the usage of value by customers and stakeholders.

Understanding the benefits of linkages between Circular Economy as part of sustainability with organizational excellence to identify how it supports the adoption and implementation of Circular Economy in a comprehensive and sound model that can lead to a structured approach, better performance results, and better targets achievement of organizations towards sustainability and United Nations Sustainable Development Goals accomplishment is what I will focus on in this research; mainly focusing on SDG #12 (Ensure sustainable consumption and production patterns), while also considering all the other sustainable development goals that are all related to Circular Economy, when considering innovation, partnerships and others.

1.2. Research Questions

1. How can organizational excellence practices be integrated with Circular Economy principles to enhance overall organizational sustainability?
2. What are the key enablers to implementing a Circular Economy approach within organizations aiming to achieve organizational excellence (Organizational Excellence: is to achieve outstanding performance results that sustain to the future, while meeting/exceeding stakeholders' expectations)?
3. How does the adoption of Circular Economy practices impact various dimensions of organizational excellence, such as efficiency, innovation, and customer satisfaction?

1.3. Research Objectives

1. To explore the relationship between the adoption of Circular Economy principles and the enhancement of organizational sustainability and excellence.
2. To identify the key enablers that impact the successful implementation of Circular Economy approaches within organizations aiming for excellence.
3. To assess the impact of Circular Economy practices on various dimensions of organizational excellence, including efficiency, innovation, and customer satisfaction.

4. To develop practical frameworks and guidelines for organizations seeking to integrate organizational excellence practices with Circular Economy principles effectively.
5. To provide evidence-based recommendations for policymakers, leaders, and practitioners on fostering sustainability and excellence through the alignment of organizational practices with Circular Economy principles.

1.4. Hypothesis

- Hypothesis Ho 1: There is statistical significance of positive relationship at the level of $\alpha=0.05$ between alignment of Circular Economy principles and the enhancement of overall organizational sustainability in Jordan private sector.
 - Hypothesis Ho 1.1: There is statistical significance of top management support at the level of $\alpha=0.05$ to effect Circular Economy alignment and the organizational sustainability enhancement in Jordan private sector.
 - Hypothesis Ho 1.2: There is statistical significance of the aligned organization's operations with Circular Economy principles $\alpha=0.05$ to achieve environmental sustainability in Jordan private sector.
- Hypothesis Ho 2: There is statistical significance of enablers at $\alpha=0.05$ has positive influence on organizations implementation of Circular Economy approach in Jordan private sector.
 - Hypothesis Ho 2.1: There is statistical significance of performance management KPIs at $\alpha=0.05$ has effect role in Circular Economy implementation in Jordan private sector.
 - Hypothesis Ho 2.2: There is statistical significance of partnerships (suppliers and stakeholders) at $\alpha=0.05$ are drivers that affect implementing Circular Economy at organizations in Jordan private sector.
- Hypothesis Ho 3: There is statistical significance of Circular Economy implementation at $\alpha=0.05$ positively that affect the dimensions of sustainability of the organization (including innovation, people, customers, partners, and employees) in Jordan private sector.

- Hypothesis Ho 3.1 a: There is statistical significance of organizations Circular Economy principles implementation (adopting practices) at $\alpha=0.05$ to improve Circular Economy performance in Jordan private sector.
- Hypothesis Ho 3.1 b: There is statistical significance of improved Circular Economy performance at $\alpha=0.05$ that affect sustainability perception of customers in Jordan private sector.
- Hypothesis Ho 3.2: There is statistical significance at $\alpha=0.05$ that innovation framework at the organization mediated the effect of people (employees) involvement in the Circular Economy on the Circular Economy principles implementation in Jordan private sector.
- Hypothesis Ho 4.1: There is statistical significance that enablers mediate the Circular Economy principles implementation at $\alpha=0.05$ to affect the overall circular economy organizational results in Jordan private sector.
- Hypothesis Ho 4.2: There is statistical significance that enablers mediate the Circular Economy Execution at $\alpha=0.05$ to affect the overall circular economy organizational results in Jordan private sector.
- Hypothesis Ho 5: There is statistical significance that directions mediate the circular economy principles execution at $\alpha=0.05$ to affect the overall Circular Economy organization results in Jordan private sector.

3.0. Data and Methodology

This chapter outlines the methodology employed in this PhD thesis, which investigates the relationship between Organizational Excellence and Circular Economy principles on Sustainability Maturity in Jordan's private sector. Utilizing a descriptive-analytical approach, the study seeks to analyze and interpret the impacts of Organizational Excellence and Circular Economy on sustainability, supported by an inductive approach to generate new knowledge based on data-driven generalizations.

A quantitative methodology was selected due to its effectiveness in capturing large population samples, evaluating statistical accuracy, and assessing population characteristics. The study employed a survey strategy, distributing questionnaires to gather extensive data across various

sectors. This focus on Jordan's private sector is strategic, as organizations in this sector have greater flexibility to adopt independent strategies, aligning with the country's economic and environmental goals as outlined in Jordan's Vision 2025 for sustainable development.

The study sample consists of private-sector organizations from Jordan, primarily small and medium enterprises (SMEs), selected to provide diverse insights into Circular Economy adoption across industries. Amman, as the capital and economic hub, served as the primary data collection location, reflecting Jordan's corporate landscape. A total of 449 organizations were sampled, ensuring a robust dataset exceeding the statistical requirements for a 95% confidence level.

Data was collected via a structured questionnaire distributed both online and in paper format between January 2023 and January 2024. The survey targeted managerial and upper-level personnel to ensure informed responses. The questionnaire, structured on a five-point Likert scale, covered organizational demographics, enablers of maturity, and key Circular Economy pillars (Direction, Execution, Results). Statistical analysis was conducted using SPSS, applying a 0.05 significance level to evaluate hypotheses and strengthen data reliability.

4.0. Analysis

The sections below present the statistical analyses and tests used to describe and analyze the primary data. Statistical Package for Social Sciences was utilized to describe and analyze the data collected from 449 respondents/organizations.

The sample characteristics of the study encompass data from 449 organizations, each providing a diverse range of organizational profiles, roles, and operational attributes. According to the data, the majority of respondents (88.4%) held managerial positions, with smaller percentages occupying CEO, director, and supervisory roles. In terms of geographical distribution, 97.1% of these organizations are headquartered in Jordan, with the remainder spread across various countries, including Canada, France, Germany, and the United States.

A significant majority (93.1%) of the organizations lack foreign ownership, while only a small fraction (6.9%) report either partial or full foreign ownership. Decision-making structures reveal that 93.8% of organizations operate independently, not owned by any other entity. This

independence aligns with the sample's organizational structure and the autonomy in operational and strategic decision-making processes.

The revenue distribution varies considerably, with 39.2% of organizations earning over \$10 million annually, while others fall into lower revenue brackets, including 12.9% in the \$1-3 million range. Employee count also shows variation, with 24.9% employing over 1000 individuals, followed closely by those with 50-99 employees.

Industries represented include services (37.3%), financials (23.6%), and real estate (7%), with smaller segments in manufacturing, healthcare, and IT. This diversity illustrates the varied economic sectors engaged in the study, reflecting a broad range of insights on Circular Economy practices across different organizational types.

The questions used in this PhD thesis throughout the questionnaire distributed for the 449 organizations included the following.

Questions were categorized as per the 3 pillars of the European Foundation for Quality Management 2020 model as Direction, Execution, and Results, while an extra category for questions was added to represent the enablers.

These 4 categories varied in the analysis in terms of dependent, moderator and independent variables, which will be explained for each hypothesis. (as per table 11).

Question No.	Questions	Category
Q1	Availability of performance management system	Enablers
Q2	Use of KPIs on strategic level	
Q3	Use of KPIs on departmental level	
Q4	Use of KPIs on employee level	
Q5	Use of KPIs on projects level	
Q6	Use of KPIs on processes level	
Q7	Documented processes	
Q8	Sustainability focus	
Q9	Sustainability KPIs and targets	
Q10	CSR focus	
Q11	CSR KPIs and targets	
Q12	Availability of innovation framework	
Q13	Selection of suppliers (based on cost)	
Q14	Selection of suppliers (based on quality)	
Q15	Selection of suppliers (based on lead time)	
Q16	Selection of suppliers (based on care for the environment)	
Q17	Selection of suppliers (based on sustainability aspects focus)	
Q18	Relationship with suppliers (short term)	
Q19	Relationship with suppliers (long term)	
Q20	Relationship with suppliers (partnership)	
Q21	Relationship with society (as customers)	
Q22	Relationship with society (as partners)	

Question No.	Questions	Category
Q23	There is clear alignment evident between the organization's Purpose, Values, Vision, Operating Model and the adoption of Circular Economy principles	Direction
Q24	The organization identifies and monitors those drivers of change that are critical to its Circular Economy Operating Model (Key Stakeholders' needs, markets, public opinion, legislation, material technology, best practices)	
Q25	The organization consistently includes Circular Economy principles as one of the relevant criteria it applies when making strategic and operational decisions	
Q26	The organization has measurement processes in place to monitor the successful implementation of Circular Economy principles into its strategic and operational ways of working, as well as the outcomes achieved	
Q27	The end-to-end supply chain is structured and managed with full consideration of Circular Economy principles where applicable	
Q28	Based on a culture of co-creation and co-design, the organization actively promotes innovative thinking to identify and deliver new Circular Economy opportunities within its ecosystem	
Q29	The organization communicates its commitment to Circular Economy principles to its Key Stakeholders and others within its ecosystem	
Q30	The organization actively educates its Customers on the importance of adopting Circular Economy principles into their own way of working, and rewards and recognizes them for any successful collaborations	Execution
Q31	The organization ensures its People are proactively guided, rewarded and recognized for their efforts and ideas to help move the organization towards a way of working based entirely on Circular Economy principles	
Q32	The organization contributes to the development, well-being and prosperity of the Society by offering sustainable solutions that address environmental problems such as climate change, material scarcity or threats to biodiversity	
Q33	The organization rewards and recognizes those Partners that adopt and embed Circular Economy principles into their own approach(es), and actively encourages the sharing of good practices	
Q34	To support organization Circular Economy ambitions, the organization continuously gathers and evaluates creative ideas from within its ecosystem	
Q35	The organization continues to create value with its products, services and solutions as it makes a clear transition from using linear to circular approaches	
Q36	To help embed Circular Economy principles, the organization periodically communicates this commitment to its People, at the same time ensuring that the messages remain ethical and avoid misdirection ("greenwashing")	
Q37	The organization converts data and information about Circular Economy into knowledge and uses the outcomes to create higher value and to improve the overall customer experience	
Q38	The organization's approach to managing risk includes an assessment of the potential impact on the future ambitions of its Circular Economy Operating Model	
Q39	The organization reduces its tangible assets and required resources by promoting a sharing culture for the use of its products, services and solutions in line with Circular Economy principles	
Q40	The organization designs and selects materials for its products, services and solutions based on Circular Economy principles to extend the life cycle of the materials used	
Q41	The organization periodically determines which assets and resources it no longer needs and based on Circular Economy principles, disposes of them responsibly	Results
Q42	Organization's customers perceive the organization's approach to Circular Economy as being environmentally responsible, ethically sound and financially fair	
Q43	People (employees) perceive the organization's approach to Circular Economy as being environmentally responsible, ethically sound and financially fair	
Q44	The members of the partner network perceive the organization's approach to Circular Economy as being environmentally responsible, ethically sound and financially fair	
Q45	The organization has a set of performance results that clearly indicate the degree of success it has had in delivering on its Circular Economy objectives	
Q46	When compared with other organizations, either in its own ecosystem or outside, it can demonstrate that it succeeds equally or better than others in delivering its Circular Economy ambitions	
Q47	The organization's internal and external audit results and risk assessments indicate outstanding performance in relation to targets set for embedding Circular Economy principles	
Q48	Based on its achievements, the organization has received external recognition for acting as a role model in the application of Circular Economy principles and associated	

Table 1 Questionnaire Questions categorizes per the EFQM 2020 Model's pillars. Source: Circular Economy Lens, Page 1-3

5.0. Results

Utilizing the robust capabilities of Statistical Package for Social Sciences (SPSS), I have processed and analyzed the data with an emphasis on precision and reliability. The analytical techniques employed range from basic descriptive statistics, which provide an initial overview of the data, to more complex inferential statistics, which allow me to draw meaningful conclusions and identify significant patterns within the dataset.

As I navigate through this chapter, I will highlight key findings and discuss their implications in relation to Organizational Excellence and Organizational Circular Economy as correlated components of organizational sustainability to support Global Sustainability. The results presented here are not only a reflection of the current state of Organizational Excellence and Organizational Circular Economy as correlated components of organizational sustainability in Jordanian organizations but also provide a foundation for potential future research in this area. In conclusion, this chapter serves as a comprehensive repository of the analyzed data from my extensive survey, offering a detailed and nuanced understanding of Organizational Excellence and Organizational Circular Economy as correlated components of organizational sustainability within the context of Jordanian organizations.

Hypothesis Ho 1

I accept Hypothesis Ho 1: There is statistical significance of positive relationship at the level of $\alpha=0.05$ between alignment of Circular Economy principles and the enhancement of overall organizational sustainability in Jordan private sector.

Based on the analysis conducted using SPSS, a significant positive correlation was found between the alignment of Circular Economy principles and organizational sustainability within Jordan's private sector, validating Hypothesis Ho 1 at a 95% confidence level ($\alpha=0.05$). The Kaiser-Meyer-Olkin (KMO) measure for sampling adequacy was 0.892, indicating excellent suitability for factor analysis. Bartlett's test confirmed the sphericity of the data, supporting factor analysis.

Two principal factors were identified, accounting for a combined explained variance of 77.258%. The high correlations observed between the variables related to Circular Economy

principles (Questions 23-41) and organizational sustainability metrics (Questions 42-48) underscore the effectiveness of Circular Economy practices in enhancing sustainability. Specific practices, such as supply chain management and collaborative innovation, showed the strongest correlations, with coefficients exceeding 0.8. Additionally, the descriptive statistics reveal moderate implementation levels of Circular Economy practices, with some variability across organizations. These results highlight the critical role of Circular Economy principles in advancing organizational sustainability, supporting strategic alignment and sustainable growth in the sector.

Hypothesis Ho 1.1

I accept Hypothesis Ho 1.1: There is statistical significance of top management support at the level of $\alpha=0.05$ to effect Circular Economy alignment and the organizational sustainability enhancement in Jordan private sector.

Based on the SPSS analysis, a significant positive correlation was identified between the alignment of Circular Economy principles and organizational sustainability in Jordan's private sector, supported by top management's role as a moderating factor. This validates Hypothesis Ho 1.1 at the $\alpha=0.05$ level, indicating that top management support significantly influences the alignment of Circular Economy principles with sustainability goals.

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.892, confirming the data's suitability for factor analysis. Bartlett's test supported the sphericity of the data, further validating the factor analysis approach. Two main factors were identified, explaining a combined variance of 77.258%, indicating the effectiveness of Circular Economy practices in promoting organizational sustainability.

Descriptive statistics reveal moderate Circular Economy implementation with variability across organizations. The model's R Square of 0.829 underscores that top management support explains 82.9% of the variance in organizational sustainability, emphasizing its critical role in driving sustainability initiatives.

This analysis substantiates that Circular Economy principles are not just theoretical but significantly impact sustainable performance, with top management support amplifying their effect. The results advocate for active leadership involvement to embed Circular Economy principles, driving strategic alignment and sustainability in organizational practices.

Hypothesis Ho 1.2

I accept Hypothesis Ho 1.2: There is statistical significance of the aligned organization's operations with Circular Economy principles $\alpha=0.05$ to achieve environmental sustainability in Jordan private sector.

The SPSS analysis reveals a strong positive correlation between the operational alignment with Circular Economy principles and environmental sustainability in Jordan's private sector, supporting Hypothesis Ho 1.2 at a 95% confidence level ($\alpha=0.05$). The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.874, which is statistically significant and indicates sufficient shared variance for factor analysis. Bartlett's test also confirmed data suitability for factor analysis.

Three main factors emerged, explaining a cumulative variance of 82.715%, indicating the effectiveness of Circular Economy practices in promoting environmental sustainability. The high correlation values between Circular Economy operational practices and sustainability metrics underscore the positive influence of these practices.

Descriptive statistics show moderate levels of Circular Economy implementation with some variability across organizations. The regression model, with an adjusted R Square of 0.853, demonstrates that 85.3% of the variance in environmental sustainability outcomes can be attributed to operational Circular Economy practices. The correlation coefficient of 0.924 highlights a strong association between these variables, with each unit increase in operational Circular Economy alignment resulting in a 0.907-unit improvement in environmental sustainability.

These findings emphasize the importance of integrating Circular Economy principles into organizational operations, demonstrating their significant impact on sustainability and supporting their prioritization in strategic planning.

Hypothesis Ho 2

I accept Hypothesis Ho 2: There is statistical significance of enablers at $\alpha=0.05$ has positive influence on organizations implementation of Circular Economy approach in Jordan private sector.

The SPSS analysis demonstrates a statistically significant positive correlation between key enablers and the implementation of Circular Economy principles in Jordan's private sector,

supporting Hypothesis Ho 2 at the $\alpha=0.05$ level. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.754, indicating sufficient shared variance for a meaningful factor analysis. Bartlett's test confirmed the data's suitability for factor analysis, providing further validation.

Five main factors were identified, cumulatively explaining 80.363% of the variance, indicating that the enablers play a crucial role in facilitating the implementation of Circular Economy practices. The high correlation values between enabler variables and Circular Economy principles underscore the positive influence of these factors on adoption rates.

Descriptive statistics reveal a moderate implementation level of Circular Economy practices, with the 'Enablers' variable reflecting a relatively high presence of supportive factors. The regression model, with an adjusted R Square of 0.664, demonstrates that 66.4% of the variance in the implementation of Circular Economy principles can be explained by these enablers. A correlation coefficient (R) of 0.815 further confirms a strong positive association.

These findings highlight the importance of enablers in driving the operationalization of Circular Economy principles, providing a robust basis for prioritizing these factors in strategic planning to enhance adoption and environmental impact within organizations.

Hypothesis Ho 2.1

I accept Hypothesis Ho 2.1: There is statistical significance of performance management KPIs at $\alpha=0.05$ has effect role in Circular Economy implementation in Jordan private sector.

The SPSS analysis reveals a statistically significant positive impact of performance management KPIs on the implementation of Circular Economy principles within Jordan's private sector, supporting Hypothesis Ho 2.1 at the $\alpha=0.05$ level. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.786, indicating that the data is suitable for factor analysis, with enough shared variance among variables. Bartlett's test further validates the factor analysis approach.

Five primary factors emerged, explaining a cumulative variance of 80.579%, indicating the effectiveness of performance management KPIs in promoting Circular Economy practices. High correlation values between KPI variables and Circular Economy principles underscore their positive influence.

Descriptive statistics show moderate levels of Circular Economy implementation with some variability, while the influence of KPIs is perceived as slightly stronger. The regression model, with an adjusted R Square of 0.511, shows that 51.1% of the variance in Circular Economy

implementation can be attributed to the impact of KPIs, confirming a significant explanatory power. The correlation coefficient (R) of 0.716 further emphasizes a strong positive association. These findings underscore the pivotal role of KPIs in driving Circular Economy implementation. The results highlight the importance of well-defined KPIs in guiding, assessing, and enhancing Circular Economy practices, positioning KPIs as essential instruments in advancing sustainable strategies within organizations.

Hypothesis Ho 2.2

I accept Hypothesis Ho 2.2: There is statistical significance of partnerships (suppliers and stakeholders) at $\alpha=0.05$ are drivers that affect implementing Circular Economy at organizations in Jordan private sector.

The SPSS analysis indicates a statistically significant positive influence of suppliers and stakeholders on the implementation of Circular Economy principles within Jordan's private sector, supporting Hypothesis Ho 2.2 at the $\alpha=0.05$ level. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.865, confirming the data's suitability for factor analysis, with sufficient shared variance among variables. Bartlett's test further validates this factor analysis approach.

Four primary factors were identified, explaining a cumulative variance of 79.382%, highlighting the critical role that partnerships with suppliers and stakeholders play in facilitating the adoption of Circular Economy practices. High correlation values between supplier and stakeholder engagement and Circular Economy implementation underscore the positive effect of these relationships.

Descriptive statistics show moderate levels of Circular Economy implementation and a relatively high perceived impact of suppliers and stakeholders. The regression model, with an adjusted R Square of 0.581, demonstrates that 58.1% of the variance in Circular Economy implementation is explained by supplier and stakeholder influence, indicating strong explanatory power. The correlation coefficient (R) of 0.763 further emphasizes this strong positive association.

These findings underscore the importance of strategic relationships with suppliers and stakeholders in promoting Circular Economy adoption. Organizations aiming to enhance their Circular Economy practices should leverage these external partnerships to drive sustainable practices and outcomes.

Hypothesis Ho 3

I accept Hypothesis Ho 3: There is statistical significance of Circular Economy implementation at $\alpha=0.05$ positively that affect the dimensions of sustainability of the organization (including innovation, people, customers, partners, and employees) in Jordan private sector.

The SPSS analysis reveals a statistically significant positive impact of implementing Circular Economy principles on various sustainability dimensions (environmental, economic, business, and social) within Jordan's private sector, supporting Hypothesis Ho 3 at the $\alpha=0.05$ level. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.854, indicating excellent suitability for factor analysis, with sufficient shared variance among variables. Bartlett's test further confirms the data's appropriateness for factor analysis.

Four main factors were identified, explaining a cumulative variance of 79.002%, underscoring the effectiveness of Circular Economy practices in advancing organizational sustainability. High correlation values between Circular Economy variables and sustainability dimensions indicate a strong positive relationship.

Descriptive statistics reveal moderate implementation levels of Circular Economy principles and a higher consensus on sustainability practices. The regression model, with an adjusted R Square of 0.590, indicates that 59.0% of the variability in sustainability dimensions is explained by Circular Economy implementation. A correlation coefficient (R) of 0.769 further highlights this strong positive association.

These findings emphasize the significant contribution of Circular Economy practices to enhancing sustainability across various dimensions within organizations. The results provide robust support for prioritizing Circular Economy principles to achieve comprehensive sustainability, impacting innovation, people, customers, partners, and employees.

Hypothesis Ho 3.1 a

I accept Hypothesis Ho 3.1a: There is statistical significance of organizations Circular Economy principles implementation (adopting practices) at $\alpha=0.05$ to improve Circular Economy performance in Jordan private sector.

The SPSS analysis demonstrates a statistically significant positive effect of implementing Circular Economy principles on organizational performance in Jordan's private sector, supporting Hypothesis Ho 3.1a at the $\alpha=0.05$ level. The Kaiser-Meyer-Olkin (KMO) measure

of sampling adequacy is 0.892, indicating excellent suitability for factor analysis with sufficient shared variance among variables. Bartlett's test further confirms the data's appropriateness for factor analysis.

Two main factors emerged, explaining a cumulative variance of 77.258%, highlighting the effectiveness of Circular Economy practices in enhancing organizational performance. High correlation values indicate a strong positive association between the implementation of Circular Economy principles and performance outcomes.

Descriptive statistics show a moderate implementation level of Circular Economy practices, while organizational performance has a slightly higher mean, indicating general alignment with sustainability goals. The regression model, with an adjusted R Square of 0.828, reveals that 82.8% of the variance in organizational performance is explained by Circular Economy implementation. The correlation coefficient (R) of 0.910 underscores a very strong positive relationship.

These findings reinforce the importance of Circular Economy principles as a key driver of performance improvement. By integrating these principles, organizations can achieve substantial gains in sustainability-related performance, underscoring the strategic value of Circular Economy adoption in enhancing organizational outcomes.

Hypothesis Ho 3.1 b

I accept Hypothesis Ho 3.1 b: There is statistical significance of improved Circular Economy performance at $\alpha=0.05$ that affect sustainability perception of customers in Jordan private sector. The SPSS analysis demonstrates a statistically significant positive relationship between improved Circular Economy performance and customer sustainability perception in Jordan's private sector, supporting Hypothesis Ho 3.1b at the $\alpha=0.05$ level. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.634, indicating acceptable suitability for factor analysis. Bartlett's test confirms the data's appropriateness for factor analysis.

A single factor explains 69.758% of the variance, underscoring the effectiveness of Circular Economy improvements in shaping positive customer perceptions. Descriptive statistics reveal that customer perception has a slightly higher mean compared to organizational performance, suggesting a favorable customer view of Circular Economy initiatives.

The regression model, with an adjusted R Square of 0.478, indicates that 47.8% of the variance in customer perception is explained by Circular Economy performance improvements. A

correlation coefficient (R) of 0.691 reinforces this strong positive association. The model's F-value of 364.479 ($p < 0.001$) confirms a robust predictive relationship.

These findings highlight the strategic importance of enhancing Circular Economy performance to positively influence customer perceptions. By focusing on Circular Economy practices, organizations can strengthen customer trust and support, which may lead to improved customer loyalty and organizational success in sustainability-driven markets.

Hypothesis Ho 3.2

I accept Hypothesis Ho 3.2: There is statistical significance at $\alpha=0.05$ that innovation framework at the organization mediated the effect of people (employees) involvement in the Circular Economy on the Circular Economy principles implementation in Jordan private sector.

The SPSS analysis reveals a statistically significant relationship between employee involvement in Circular Economy initiatives, innovation frameworks, and the successful implementation of Circular Economy principles in Jordan's private sector, supporting Hypothesis Ho 3.2 at the $\alpha=0.05$ level. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.903, indicating excellent suitability for factor analysis, with strong shared variance among variables. Bartlett's test confirms the data's appropriateness for factor analysis.

Two main factors were extracted, accounting for a cumulative variance of 77.518%, emphasizing the significance of employee involvement and innovation frameworks in Circular Economy implementation. Descriptive statistics reveal moderate to high levels of employee perception of Circular Economy initiatives and innovation frameworks.

The regression model, with an adjusted R-squared of 0.816, suggests that 81.6% of the variance in Circular Economy implementation is explained by employee involvement, moderated by innovation. The significant interaction term highlights that while an innovation framework alone does not directly predict Circular Economy success, its effectiveness is amplified when paired with employee involvement.

These findings underscore the importance of fostering an innovative culture among employees to advance Circular Economy goals. Organizations are encouraged to engage employees actively and support innovative practices, as these elements collectively drive the successful implementation of Circular Economy principles, enhancing organizational sustainability efforts.

Hypothesis Ho 4.1

I reject Hypothesis Ho 4.1: There is statistical significance that enablers mediate the Circular Economy principles implementation at $\alpha=0.05$ to affect the overall circular economy organizational results in Jordan private sector.

The SPSS analysis indicates that the implementation of Circular Economy principles significantly impacts organizational results in Jordan's private sector, but the mediating role of enablers is statistically insignificant, leading to the rejection of Hypothesis Ho 4.1 at the $\alpha=0.05$ level. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.892, confirming the data's suitability for factor analysis, with strong shared variance among variables. Bartlett's test further validates this approach.

Two main factors emerged, accounting for a cumulative variance of 77.258%, emphasizing the importance of Circular Economy principles for achieving positive organizational results. Descriptive statistics reveal moderate levels of Circular Economy implementation and a higher mean score for enablers, suggesting strong support for Circular Economy practices.

The regression model, with an adjusted R-squared value of 0.828, shows that 82.8% of the variation in organizational outcomes is explained by Circular Economy principles, but the enablers and interaction term (ModeratorEnablerCEImplementation) are statistically insignificant. The coefficient of 0.860 for Circular Economy principles (X1) underscores its substantial impact on organizational results, while the enablers (X2) and interaction term (X3) show no significant effect.

These findings highlight the direct effect of Circular Economy practices on organizational outcomes, suggesting that while enablers are supportive, they do not significantly mediate this relationship. Organizations aiming to enhance Circular Economy results should focus primarily on implementing these principles directly.

Hypothesis Ho 4.2

I accept Hypothesis Ho 4.2: There is statistical significance that enablers mediate the Circular Economy Execution at $\alpha=0.05$ to affect the overall circular economy organizational results in Jordan private sector.

The analysis for Hypothesis Ho 4.2 explores the impact of Circular Economy (CE) execution, supported by enablers, on organizational results in Jordan's private sector. The Kaiser-Meyer-

Olkin (KMO) measure of sampling adequacy is 0.892, confirming the data's suitability for factor analysis, with shared variance well above the threshold.

Descriptive statistics reveal substantial means for enablers (3.6359) and CE execution (3.4900), indicating consistent organizational support for CE practices. The model's adjusted R-squared value of 0.808 suggests that 80.8% of the variance in CE results can be attributed to the execution of CE principles and the enablers' presence. This high R-squared value underscores the strong link between CE execution and organizational performance.

Regression results affirm the statistical significance of enablers as mediators, with an F-statistic of 519.141, indicating a reliable model at the 0.05 alpha level. The regression equation $Y=0.492+0.407X_1+0.189X_2+0.350X_3$ reveals that:

X_1 (CE execution) significantly influences results with a coefficient of 0.407.

X_2 (enablers) has a positive effect on results, though less pronounced, with a coefficient of 0.189.

X_3 (moderator interaction) contributes substantially with a coefficient of 0.350, highlighting its role in enhancing the CE execution-outcome relationship.

These results validate Hypothesis Ho 4.2, emphasizing that enablers, along with their interaction with CE execution, positively affect CE outcomes, thus reinforcing their importance in achieving organizational results in Jordan's private sector.

Hypothesis Ho 5

I accept Hypothesis Ho 5: There is statistical significance that directions mediate the circular economy principles execution at $\alpha=0.05$ to affect the overall Circular Economy organization results in Jordan private sector.

The analysis for Hypothesis Ho 5 examines the moderating role of Circular Economy (CE) directions in the relationship between CE execution and organizational results within Jordan's private sector. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.915, indicating excellent sampling adequacy for factor analysis, with strong shared variance supporting robust correlations among variables.

Descriptive statistics highlight a varied level of CE execution (mean = 3.4900), organizational results (mean = 3.3486), and strategic directions (mean = 3.3420), with the interaction term

(ModeratorDirections) showing considerable variability, underscoring the range of moderating effects observed.

The model summary reveals a strong adjusted R-squared of 0.830, meaning 83% of the variance in organizational results can be explained by CE execution, directions, and their interaction. The significant F-value of 615.374 confirms the model's reliability at a 0.05 alpha level.

The regression equation $Y = -0.327 + 0.744X_1 + 0.541X_2 - 0.298X_3$ illustrates the relationship:

X_1 (CE execution) shows a positive, substantial effect on results (coefficient = 0.744).

X_2 (directions) also contributes positively (coefficient = 0.541).

X_3 (interaction term) has a negative coefficient (-0.298), suggesting that while CE directions generally enhance execution, certain conditions may limit their moderating effect.

These findings validate Hypothesis Ho 5, emphasizing that both execution and strategic directions positively influence CE outcomes, although the interaction may sometimes reduce the strength of this relationship. This insight is valuable for organizations seeking to optimize CE practices by strategically managing directional guidance.

6.0. Findings

The findings of this study provide a comprehensive analysis of the impact of Circular Economy (CE) principles on organizational sustainability within Jordan's private sector. Hypothesis Ho 1, which posited a positive relationship between the alignment of CE principles and organizational sustainability, was confirmed, indicating a significant positive correlation between CE practices and sustainable organizational outcomes. Using the Statistical Package for Social Sciences (SPSS), this study aligns with Cordella et al. (2023), who emphasize the need for systematic sustainability assessments, and Guinee et al. (2013), who advocate for methods like Life Cycle Sustainability Assessment to comprehensively address environmental, social, and economic impacts. The study establishes that organizations integrating CE principles witness enhanced sustainability, validating the importance of CE in achieving measurable improvements in sustainability.

This study also underscores the role of digital transformation in driving eco-innovation, aligning with the findings of Xu (2023) on the positive impact of digital strategies on sustainability within

organizations. Digital tools are instrumental in strengthening CE efforts and advancing sustainable business models. The importance of stakeholder engagement, as discussed by Bhatnagar et al. (2022), is also highlighted in the findings, indicating that involving diverse stakeholders is critical for the success of CE practices. Ba et al. (2023) further emphasize the importance of contextualizing sustainability planning within community dynamics, suggesting that tailored, community-specific approaches are essential for optimizing sustainability outcomes.

The study's findings reinforce the essential role of CE in supply chain sustainability, confirming a strong correlation between effective supply chain management and enhanced sustainability. This is consistent with Ranta et al. (2021), who highlight the value of collaboration among stakeholders, and Schlüter et al. (2023), who advocate for Systems Thinking as a holistic approach that integrates various organizational functions into a cohesive sustainability framework. The practical implications of these findings are significant for practitioners and policymakers, aligning with García-Sánchez et al. (2021) and Mulazzani & Manrique (2017), who stress the need for strategic direction and stakeholder alignment in CE implementation. By incorporating CE principles into models of organizational excellence, such as the European Foundation for Quality Management (EFQM, 2020), organizations can enhance resilience and environmental responsibility, embedding sustainability into their operational core.

Under Hypothesis Ho 1.1, the study examined the impact of top management support on CE alignment and organizational sustainability. The findings support Saulick et al. (2023), who introduced the Business Sustainability Performance Assessment framework, emphasizing the complexity of measuring sustainability performance across diverse organizational contexts. Eikelenboom and Marrewijk (2023) stress the importance of cultural shifts within organizations to effectively facilitate sustainable transitions, a sentiment echoed in the study's findings, which highlight the critical role of leadership in driving CE adoption.

The study also explores the socio-economic dimensions of sustainability, as outlined by Ba and Galik (2023), who discuss the significance of community-driven sustainability planning. Effective communication is essential for advancing sustainable practices, as discussed by Gebhardt and Bachmann (2023), who emphasize media's role in shaping public perceptions of sustainable entrepreneurship. Schlüter et al. (2023) advocate for Systems Thinking in sustainability assessments, a perspective that supports the study's findings on the importance of

interconnected strategies within CE. Havas (2023) introduces the concept of Goal-Oriented Transformative Change, stressing the need for interdisciplinary collaboration to address sustainability challenges comprehensively, a notion that aligns with the study's focus on diverse approaches for effective CE adoption.

Under Hypothesis Ho 1.2, the study analyzed the alignment of organizational operations with CE principles to achieve environmental sustainability. The findings align with Saulick et al. (2023), who highlight the need for structured evaluations of sustainability performance within CE frameworks. The study emphasizes the role of organizational culture in adopting sustainable practices, resonating with Eikelenboom and Marrewijk (2023) on the importance of fostering collaboration and innovation. The analysis also aligns with Ba and Galik (2023) on the significance of contextual factors in CE strategies, further validated by Stam et al. (2023), who advocate for continuous learning and knowledge dissemination as catalysts for sustainability transformations.

Systems Thinking, as proposed by Schlüter et al. (2023), is essential for integrating sustainability into business models. The study emphasizes a multi-dimensional approach to CE, consistent with Havas (2023)'s discussion on Goal-Oriented Transformative Change, underscoring interdisciplinary collaboration. By focusing on resource efficiency, the study aligns with the European Foundation for Quality Management (EFQM) and Lehmann et al. (2022), supporting CE as a means to redirect economic growth. Addressing challenges faced by small and medium-sized enterprises (SMEs) in CE adoption, as noted by Rodríguez-Espíndola et al. (2022), the study highlights agility and process standardization as essential for broader adoption.

The study further validates the importance of performance management Key Performance Indicators (KPIs) for CE implementation (Hypothesis Ho 2.1). This finding underscores the role of KPIs in measuring and enhancing sustainability, aligning with Lehmann et al. (2022) on the critical role of resource efficiency within CE. The importance of stakeholder engagement, particularly in SMEs, is emphasized, as discussed by Ranta et al. (2021), advocating for collaborative approaches to stimulate sustainable innovation.

Hypothesis Ho 2.2, which examines the significance of partnerships with suppliers and stakeholders in CE implementation, reveals that external relationships are crucial for sustainability. The analysis aligns with Chernev et al. (2015) and Park and Jang (2013),

highlighting the strategic role of partnerships in CE. This finding supports Sthapit (2018)'s recommendation for organizations to leverage supplier and stakeholder relationships to offer sustainable choices. The study emphasizes the need for comprehensive strategies to engage consumers in sustainable behavior change, consistent with the work of Horng et al. (2022) and Al-Thawadi et al. (2021), who stress integrating sustainability into educational and policy frameworks.

In analyzing the broader impact of CE on organizational dimensions of sustainability, Hypothesis Ho 3 confirms that CE practices positively influence innovation, customer relations, and employee engagement. The findings align with Saulick et al. (2023) on the need for businesses to adopt sustainable practices and with Gebhardt and Bachmann (2023) on knowledge intermediation in sustainability transitions. The study supports EFQM's emphasis on resource efficiency (EFQM, 2020) and Lehmann et al. (2022)'s advocacy for CE models focused on conservation.

Finally, Hypothesis Ho 4.2 underscores the significance of strategic enablers in enhancing CE execution and sustainability. The findings validate the importance of quality management frameworks, particularly the EFQM model, in promoting CE, as discussed by Suárez et al. (2017) and Asgher et al. (2015). This study's findings advocate for a holistic approach to integrating environmental stewardship and operational efficiency, providing a comprehensive understanding of how CE principles drive sustainability within organizations.

In conclusion, the study confirms that CE principles significantly enhance organizational sustainability and operational performance, validating the importance of interdisciplinary approaches and stakeholder engagement in CE. These findings contribute to the broader discourse on sustainable business practices, offering valuable insights for academia, practitioners, and policymakers striving to foster sustainability within the Circular Economy framework.

7.0. Conclusions, Recommendations, Future Studies & Research limits

7.1. Conclusion

In conclusion, this research aimed to explore the alignment between Circular Economy principles and organizational excellence within Jordan's private sector, with a focus on enhancing sustainability. This study is timely and relevant given Jordan's evolving commitment to sustainable development, which aligns with its Vision 2025. The empirical findings from 449 surveyed companies demonstrate that integrating Circular Economy practices can indeed foster organizational excellence, contributing to both environmental sustainability and improved business performance.

One of the main contributions of this research is the development of a practical framework that highlights the key enablers for Circular Economy implementation, including leadership support and stakeholder engagement. These findings underscore the necessity of a systemic approach to sustainability that aligns with Jordan's strategic objectives. The study provides evidence-based recommendations specifically for Jordanian policymakers, advocating for policies that support SMEs in adopting Circular Economy practices. Additionally, the research contributes a unique perspective on how excellence models like EFQM can be adapted to integrate sustainability, thus providing a pathway for companies to achieve both operational excellence and environmental stewardship.

In examining the Jordanian context, the study reveals challenges such as resource constraints and varying levels of environmental awareness among SMEs. These challenges indicate a need for increased governmental support and targeted educational initiatives to raise awareness about the benefits of Circular Economy. By situating the findings within Jordan's socio-economic landscape, this research not only adds to the global discourse on Circular Economy but also provides localized insights that are critical for advancing sustainability in emerging economies.

7.2. Recommendations

Enhancing Circular Economy Adoption in Jordan: To foster Circular Economy practices in Jordanian companies, I recommend the following specific actions:

1. **Strengthen Policy Support and Incentives:** The government could develop and implement policies that incentivize businesses to adopt Circular Economy models. This

might include tax benefits, grants, or subsidies for organizations that prioritize sustainability. Such policies would reduce financial barriers and promote wider adoption across sectors.

2. **Encourage Industry-Specific Circular Economy Programs:** Recognizing the diversity of Jordan's private sector, it is essential to tailor Circular Economy programs to specific industries. For instance, in the manufacturing sector, programs could focus on resource efficiency and waste reduction, while in the service sector, they could emphasize product lifecycle management and recycling initiatives. This targeted approach ensures that strategies are relevant and impactful.
3. **Enhance Collaboration Among Stakeholders:** Establishing a platform for collaboration between businesses, government agencies, and academic institutions would facilitate knowledge sharing and innovation. By working together, stakeholders can pool resources, share best practices, and develop solutions that align with Jordan's unique economic and environmental challenges.
4. **Develop Capacity-Building Initiatives:** To ensure sustainable implementation, there is a need for continuous education and training. Workshops, seminars, and training programs on Circular Economy practices should be organized, focusing on developing the skills needed to drive sustainability in various sectors.
5. **Create Public Awareness Campaigns:** Increasing public awareness about the benefits of Circular Economy practices is crucial. Campaigns should highlight how individuals and businesses can contribute to sustainability. Engaging the public will help build a culture that values environmental stewardship, creating demand for sustainable products and services.
6. **Implement Metrics for Measuring Circular Economy Success:** To evaluate the impact of these initiatives, I recommend establishing a standardized set of metrics for Circular Economy success. These could include metrics for waste reduction, resource efficiency, and financial savings, providing a benchmark for organizations to assess their progress.

By implementing these focused recommendations, Jordanian companies can navigate the transition to a Circular Economy, achieving sustainability goals while contributing to the country's broader development objectives.

7.3. Research Gaps

While this study provides significant insights into the alignment of Organizational Excellence and Circular Economy principles in enhancing sustainability, certain research gaps have been identified that warrant further investigation. First, the existing literature predominantly addresses Circular Economy and Organizational Excellence separately, with limited research exploring their combined impact on sustainability within specific regional contexts. This indicates a need for more comprehensive studies that bridge these concepts across various industries and geographies, particularly in developing economies where Circular Economy practices are still emerging.

Another research gap relates to the depth of empirical evidence on the direct effects of Circular Economy adoption on organizational performance metrics. Although this thesis contributes to this area by examining private sector organizations in Jordan, further research is necessary to validate these findings across other sectors and regions to assess the consistency and generalizability of the results.

Moreover, the current study highlights enablers such as top management support and partnerships as critical to successful Circular Economy implementation. However, there is limited understanding of the mechanisms through which these enablers interact with organizational processes to influence sustainability outcomes. Future research could delve into these dynamics to provide a more nuanced understanding of how specific organizational factors facilitate or hinder the adoption of Circular Economy practices.

Lastly, this thesis identifies potential benefits of integrating Circular Economy principles into Organizational Excellence frameworks. However, existing excellence models, like the EFQM, still lack robust metrics to fully capture Circular Economy contributions. Addressing this gap could help in developing more integrated performance management systems that better align with sustainability goals.

7.4. Future Studies

Future research directions suggested in the thesis include:

- **Exploring Challenges in Circular Economy Implementation:** Further investigation into the operational and cultural challenges faced by organizations in implementing Circular Economy practices and identifying strategies to overcome these barriers.

- **Impact of Circular Economy on Customer Perceptions:** Additional research on how improved Circular Economy performance influences customer sustainability perceptions and the role of unique and sustainable products or services in shaping these perceptions.
- **Leadership and Stakeholder Engagement:** Deeper exploration into the dynamics of leadership and stakeholder engagement in driving Circular Economy initiatives, with a focus on identifying effective strategies for broadening stakeholder involvement.
- **Holistic Approaches to Circular Economy Adoption:** Studies to develop and test holistic, multi-faceted strategies for Circular Economy adoption that address the complexities and challenges identified in the analysis.
- **Regional and Global Context:** Investigating the transferability of Circular Economy practices and strategies beyond the Jordanian context to other regions and countries, considering variations in regulatory frameworks, cultural norms, and market dynamics. This could involve comparative studies across different regions to identify commonalities and differences in Circular Economy implementation and effectiveness.

7.5. Research Limits

The study acknowledges several limitations:

- **Scope of Circular Economy Implementation:** The focus on certain aspects of Circular Economy implementation, such as procurement, innovation, and reverse logistics, may limit the understanding of Circular Economy's impact across other organizational segments.
- **Operational Agility and Cultural Adoption:** Challenges in operational agility and cultural adoption of Circular Economy principles within organizations are identified, suggesting the need for further research to understand and address these barriers effectively.
- **Generalizability of Findings:** The study's findings, while significant, may not be universally applicable across all industries or organizational contexts, indicating a need for caution in generalizing the results (these results refer to the selected sample of private sector companies in Jordan).

- **Empirical Evidence:** While the study provides empirical evidence supporting the positive relationship between Circular Economy practices and organizational sustainability, further research is needed to validate these findings across diverse settings and over longer periods.
- **Limited Regional or Global Perspective:** The study's focus solely on Jordanian organizations may restrict the generalizability of findings to broader regional or global contexts. Future research should aim to incorporate diverse geographical contexts to enhance the applicability and robustness of Circular Economy frameworks and strategies.

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9.0. List of my publications and conferences attended

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