



التقييم الذاتي لمؤسسات الطفولة باستخدام النموذج الأوروبي للتميز المؤسسي (EFQM) (دراسة مقارنة)

سبحة حاكم الحياني

استاذ مشارك في تدريس الطفولة المبكرة

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المخلص

الخلفية: ظهر تطبيق نموذج التميز للمؤسسة الأوروبية لإدارة الجودة (EFQM) بشكل متزايد في الآونة الأخيرة في العديد من المنظمات. كان الهدف من هذه الدراسة هو إظهار تأثير استخدام التقييم الذاتي لنموذج التميز EFQM في منظمات الطفولة المبكرة بقطاعها الحكومي والخاص. ونموذج التميز EFQM هو إطار غير إلزامي يستند إلى تسعة معايير. هذه المعايير تشمل القيادة، السياسة والاستراتيجيات، العاملون، الشراكات والموارد، العمليات، نتائج العملاء، نتائج المجتمع، نتائج الأداء الرئيسية. هذه الدراسة استخدمت التقييم الذاتي من خلال إجراء دراسة مقارنة بين مؤسسات الطفولة والتي تم اختيارها بشكل عشوائي. النتائج: كشفت نتائج هذه الدراسة أهمية استخدام EFQM في تطوير منظمات الطفولة المبكرة. في هذا السياق، يتم الاعتراف بالتقييم الذاتي القائم على نموذج التميز EFQM كأداة قوية للسيطرة على عملية التحسين المستمر للمؤسسة. الاستنتاجات / الأهمية: أظهرت الدراسة أن هناك فروقات واضحة في الحصول على معدل مرتفع للحصول على التميز المؤسسي بين مؤسسات الطفولة المبكرة عند تطبيق النموذج الأوروبي للتميز المؤسسي. وقد أوصت الدراسة القادة مؤسسات الطفولة المبكرة بذل المزيد من الجهود خاصة في القطاع الحكومي لزيادة الجهد المبذول لتحقيق الجودة باستخدام النموذج الأوروبي EFQM في تطوير أداؤها.

الكلمات المفتاحية: EFQM، نموذج التميز، التقييم الذاتي، إعدادات الطفولة المبكرة.



Implementation of EFQM Excellence Model Self-assessment in Early Childhood Settings (Comparative Case Studies)

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ABSTRACT

Background: Nowadays, there is an increase apply of the application of the European Foundation for Quality Management (EFQM) excellence models in various educational organizations. The aim purpose of this study was to show the impact of using EFQM excellence model self-assessment in Early Childhood (EC) in both public and private settings. This model is a non-prescriptive frame constructed on nine main standards. These include leadership, strategies and policy, processes, partnership and resources, products and services, people result, customer results, society result, and key performance result. The data generated in this study were collected using a self-assessment questionnaire administered to two case studies which selected randomly. Results: The results from this study revealed the importance of using EFQM in developing quality management in EC organizations. The use of self-assessment based on the EFQM excellence model has acknowledged as an influential instrument for monitoring an organization's constant improvement process. Conclusions/significance: There was statistically significant differences in the total score between the public and private settings to obtain a higher level of excellence practices considering the EFQM. It recommended that leaders at EC settings urge to increase efforts particularly in public sector to achieve a higher level of excellence management practice considering the EFQM.

Keywords: EFQM, excellence model, self-assessment, Early Childhood settings.



Introduction

With the revolutionary changes around the world, educational system still needs total overhauling particularly in the field of Early Childhood (EC) sector. The quality of children's learning environment is an important issue frequently raised around the world which delivering both a challenge and chance for real transformation. Parents became more aware about the term of "quality" in regard to the services, teaching and learning practices of their children. This led some EC organizations to adopt high quality standards to manage the educational system. Accordingly, several approaches that can guide EC settings to implement the quality managements procedures and principles in order to improve children's care and learning outcomes. Some researchers reported that schools implemented the (EFQM) excellence models to aid for self-assessment practices and constant improvement (Farrar, 2000; Longbottom, Osseo-Asare, 2002; Saraiva, Rosa & d'Orey, 2003; Rodriguez-Mantilla, Martine-Zarzuelo, & Femandez-Cruz, 2020). Therefore, children need to have more growth-promoting experiences and positive interactions in high-quality environments (Wolery, 2004).

The EFQM excellence model was introduced at the beginning of 1992 as the common framework for measuring organizations for the European Quality Award. This model is the best-known integrated model in Europe and is applied in many settings such as academic and acute care hospitals, psychosomatic clinics and homes for the elderly (Schubert & Zink, 2005). It is now the most broadly applied organizational framework in Europe and across the world which become the foundation for the majority of regional, national and international Quality Awards. Yet, in the last few years there was a growing number of non-for-profit organizations that applying the model to improve their services outcomes. Also, most universities in European reported that implemented EFQM as the basis for the measurement of their activities (Spasos, et al., 2008). It was recognized to offer prizes for organizations that reach high performance level in certain subjects as well as it has been used broadly to empower educational organizations to accomplish their strategic goals and improve the outcomes (Alsaleh, 2016).

Furthermore, Hakkak and Ghodsi (2015) stated that the EFQM model is important tool which considers as a map that can be used by any organization to improve their operational features in comprehensive framework. The EFQM excellence model is a non-prescriptive Total Quality Management (TQM) framework based on nine main standards. These include leadership, strategies and policy, processes, partnership and resources, products and services, people result, customer results, society result, and key performance result. Oakland (2003) assumed that the EFQM excellence can be attained effectively through leadership driving strategic planning, that is carried out by partnership, resources, and processes.

The most significant benefit that the organizations can obtained by implementing such model is to identify the employee's strengths and weaknesses, which provides evidences for development plans (Tajri, 2005). In Europe, number of scholars



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asserted that when the principles of the EFQM excellence model have been implemented constantly and effectively and, performance can be improved in short-time and long-time (Boulter, Bendell, Abas, Dahlgaard, & Singhal2005). In the same context, Saraiva et al. (2003) found that many schools in United States that implemented EFQM excellence model had a real improvement, powerful transformation and renovated growth in school performance. In addition, Loukas (2007) indicated that the excellence model offers a systemic view, requests for high involvement level of people which enables for self-improvement and leads the organization to achieve constant changes by monitoring quality at each stage and process. It also considered as a practical instrument that can be applied in different systems to benchmark with other organizations; to recognize areas for improvement; and to structure the organization's management system (Dodangeh & Rosnah, 2011).

In Saudi Arabia, there is a growing demand to obtain high quality in the all educational sectors include the area of EC education. In higher education, students, parents and members of the community need to make sure that all services across university departments are equivalent to good international practice (Alsaleh, 2016). In relation to EC settings, using EFQM excellence model was found to be limited in particular in Saudi Arabia which has been only used widely in higher education. Bordalba (2016) confirmed the importance of establishing proper means of communication between the members of an educational setting (consist of family-EC setting communication, as the information is frequently transmitted unidirectionally are mostly relevant which impact on the quality of organizations. In the case of private EC setting, the implementing of EFQM showed obvious improvements in services particularly in the mean of internal communicating with families compared to public EC settings (Rodriguez-Mantilla, Martine-Zarzuolo, & Fernandez-Cruz, 2020). Consequently, cultural context and EC ownership types maybe effect on TQM particularly the ways of social interactions between EC settings and families, therefore assessing all the aspects of services in these settings is needed.

Theoretical framework

The EFQM provides a tested framework, an accepted basis for evaluation and a means to facilitate comparisons both internally and externally (Hillman, 1994). Mønsted and Føns (2002) argued that one of the major advantages of applying the model of excellence EFQM is in implementation of the self-assessment questionnaire. It is very significant tool to compare the organization practices and results with the excellence model. The TQM can be defined by some principles that encompass customer's satisfaction, continuous improvement, commitment and leadership styles relating to management, involvement of employees, partnership and measurement by indicators and feedback (Teh, Young, Arumugam & Ooi, 2009). The EFQM excellence model measures the organizations in terms of TQM applications.

EFQM is also has nine major standards. The five standards of model are associated to the 'Enablers' and expression of components of an organization and



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how they relate with each other. The enablers include (leadership, policy and strategy, people, partnerships and resources and processes describe how things are done in the organization). The next four standards are connected to the 'Results' of performance and implementation of 'Enablers' which assist to identify strengths and improvement points improved using feedback (Calvo-Mora Picón-Berjoyo, Ruiz-Moreno, & Cauzo-Bottala, 2015). The 'Results' standards relate to what an organization achieves and their final outcomes. Thus, the 'Results' are caused by 'Enablers' and 'Enablers' are improved by addressing the feedback from 'Results' (EFQM, 2003a, 2003b).

Leadership standards clarifies that how managers can influence on something. Alsaleh (2016) confirmed that Leadership standard is extremely significant standard in the EFQM since leaders are in charge for many dynamic actions associated to excellence for instance deploying excellence principles in organizations, articulating a future vision, creation partnerships and directing governance. The next standards outline the policy and strategy of the organization regarding to the mission, values, vision and strategic planning associate to the perception of TQM. People standard emphases on the benefit of the employees. The fourth standard is partnerships which focuses on how organizations provide effective and efficient resources. The processes standards assist the organizations to recognize, manage, evaluate and improve its own processes. In relation to the results of people, customer and society step the end key performance results which display the total of the organization performance (Hakkak & Ghodsi, 2015). Generally speaking, organizations may have an alternative approach and this include self-assessment questionnaire survey, workshops, pro-forma and award simulation (EFQM, 2003). Other assessments tools encompass developing management commitment, communicating channels, self-assessment plans, establishing teams, training and action plan, and reviewing feedback and making changes.

Applying the self-assessment survey at the organizations approved by scholars to have several benefits. These encompassed: a) achieving highly structured plans, b) assisting the evidence-gathering process to taking place, b) evaluating organization's strengths; c) improving organization's plan ; d) raising the awareness of individuals in organization on the fundamental concepts of EFQM model and how they associate to their obligations; and e) participating the improvement plans into regular operations (EFQM, 2003 & (Calvo-Mora, et al., 2015).). Without doubt, organizations requirement to create suitable management system in order to reach success, despite of their area, structure and size. Thus, using this model guide the organizations to identify strengths, areas of improvement and growth of the organization on the path to excellence. The model below illuminates the criteria that assist the organizations to assess their own progress towards excellence. Each of the nine criteria has in detail clarification, which make it easier to the organization to obtain high level of TQM (Dodangeh & Rosnah, 2011).

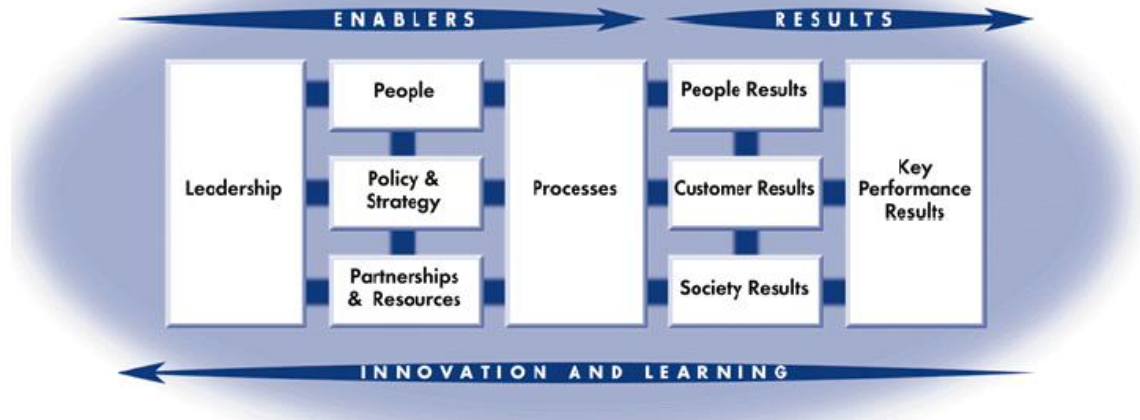


Figure 1. EFQM Model. Source: (EFQM, 2003a, b)

Brief Explanations of the EFQM Standards

Leadership

Driving excellence rely upon leaders who are able to transfer their positive influence on the processes of developing, facilitating and achieving the organization's mission and vision. In addition, they empowering the organizational values and take it to actions via the systems that needed with the intention of sustaining success within implement these in employers' behaviors and practices. It can be clear that transforming the organization's direction, attract talent employers, developing innovative services and product and satisfying customers are depending on the strengths of its leadership.

Policy and Strategy

Policies, action plans, objectives and processes are established and organized to produce the organization's strategy. When the organizations implement their mission and vision, they take into account developing and empowering the stakeholders which considered as significant element of their strategy. Strategic planning can be defined as the direction in which the organization move to in order to fulfil its own mission.

People

To achieve excellent standards, organizations have to manage, enhance and identify the full potential of their people at an organizational, team-based and an individual level. They promote equality and empower their people through identifying their strength and potential. Organizations require to care for, communicate, reward and recognize their employer's achievements and success in the way they are motivated and encouraged to show their skills and knowledge for driving excellence for the organization.



Partnerships and resources

Excellent organizations put into account the importance of managing the external partnerships, traders and the internal resources with the purpose of assisting policy, strategy and the operation of processes. During the process of managing partnerships and resources, the organization need to make balance between the current situations and the future needs of the organization with taking into account the expectations of the customers.

Processes

To achieve excellence, organizations have to manage and improve its processes in order to fully satisfy the stakeholders and customers and increase the trust and appreciation among their own people. Managing ongoing process, organization focus on their target and latitude employers to make decision in their own place work.

Customer, People and Society results

In relation to customer, people and society results, excellent organizations require to measure the progress outcomes in a comprehensive way to be able to achieve the remarkable results in regard to their customers, people and society.

Key performance results

In the stage of evaluating the key performance results, the organizations assess their events, actions and achievement plans comprehensively in which enable them to translate the outstanding results through their policy, vision and strategy.

Methods

A Comparative Case Studies Approach

In order to address the research question, this study used a comparative case studies approach to examine practices and to illustrate pattern in order to test process and ideas. Bartlett and Vavrus (2017) asserted that comparative case studies approach is well-knowing research approach to make comparison and contrast between the generated data and to get in-depth understanding of phenomena. The current study's methodology carried out in this research is quantitative in nature, with an explanatory type via using the self-assessment questionnaire of the EFQM excellence model.

Sampling

In this research, two case studies of an EC public and private settings were applied to demonstrate the importance of EFQM methodology. These settings were selected randomly. In these cases, approach confidentiality was significant precondition. There were no differences between the settings in term of size, years of experiences and learning curricula. Two EC setting responded to a self-assessment questionnaire survey. The primary data collected from one public and one private EC settings in the city of Mecca which has been selected randomly. Specific dates were arranged with the employers (head of centers and teachers) in these settings for applying the instrument that assured complete anonymity of the assessments and results.



Instrument

The items of the EFQM self-assessment questionnaire consists of nine main criteria. These include; the 'Enablers' are (leadership, policy and strategy, people, partnerships and resources and processes describe how things are done in the organization). The 'Results' items are (customers, people, society and key performance describe what is achieved by the enablers). In term of enablers, for each of 10 items (questions), agree one score for the statements described against approach, development, assessment, review, results and refinement. The criterion six to nine contain 10 questions for each criterion and one score for the statements described against trends, comparisons and causes. A five-point Likert scale that ranged from one (weak evidence) to five (strong positive evidence).

Research problem

The recent study intended to answer the following question: What is the impact of implementing EFQM excellence model self-assessment in early childhood organizations? and in order to answer this question, the participants completed the 90 sub questions in the self-assessment questionnaire.

Result

Questionnaire validity

Means the ability of the questionnaire to measure what they were supposed to measure. Validity was measured by using the internal consistency between the overall score for each axis and the overall score for the questionnaire. Also, validity was calculated using internal consistency by calculating the correlation coefficient (Pearson correlation coefficient) between the overall score for each axis (Leadership, Strategy, People, Partnerships and Resources, Processes, Products, Services, Customer Results, People Results, Society Results, Key Performance Results) and The overall score of the questionnaire (see table 1).

Table 1 represented that all correlation coefficients are significant at the level of (0.01) for their proximity to number one, which indicates the validity and homogeneity of the statements of the questionnaire.

Table 1.

Values of correlation coefficients between the total score for each axis and the total score for the questionnaire

	Correlations	Sig
Leadership	0.813	0.01
Policy & Strategy	0.912	0.01
People	0.779	0.01
Partnerships and Resources	0.724	0.01
Processes, Products, Services	0.881	0.01
Customer Results	0.702	0.01
People Results	0.908	0.01
Society Results	0.751	0.01
Key Performance Results	0.866	0.01



Reliability

Reliability refers to the accuracy of the test in the measurement and observation, its inconsistency with itself, its consistency and frequency in the information it provides about the behavior of the examinee, and it's the ratio between the degree variation on the scale indicating the actual performance of the examinees, and reliability is calculated by:

- 1-Cronbach's Alpha Coefficient
- 2-Split-half method

Table 2.

The reliability coefficient of the axis of the questionnaire

	Cronbach's Alpha	Split-half
Leadership	0.783	0.750 – 0.821
Strategy	0.926	0.891 – 0.960
People	0.804	0.775 – 0.849
Partnerships and Resources	0.739	0.702 – 0.775
Processes, Products, Services	0.854	0.823 – 0.891
Customer Results	0.905	0.870 – 0.948
People Results	0.891	0.861 – 0.934
Society Results	0.766	0.739 – 0.808
Key Performance Results	0.912	0.888 – 0.953
Reliability of the questionnaire as whole	0.836	0.805 – 0.872

It is clear from the previous table that all the values of reliability coefficients: Alpha Coefficient, Split-half are significant at the level of (0.01), which indicates the consistency of the questionnaire.

Discussion

Standard 1: Leadership

There are statistically significant differences between the mean scores for the Public and the Private EC settings in leadership. Leaders clarified their practices in term of developing a purpose and vision, role model appropriate values, ethics and attitudes with respect to customers (included children, and parents), employees and the community. They demonstrated personal involvement to ensure that your organizational processes and structure are aligned with strategy in both public and private settings with clear differences in the scores. To verify this hypothesis, a T-Test was applied for the Public EC setting, private EC setting degrees in leadership, and the following table shows this.

As illustrated in table (3) and figure (1) that the value of (T) was (12.957) relating to Approach, which is a statistically significant value at the level of significance (0.01) in favor of the Public EC setting. The Private EC setting average (44.625), while the Public EC setting average (31.667). in Also, the value of (T) was (2.661) in Deployment, which is a statistically significant value at the level of significance



(0.05) in favor of Public EC setting, where the Private EC setting average (40.195), while the Public EC setting average (38.512). As seen in table 3 and figure 1 that the value of (T) was (10.888) in Assessment and Refinement, which is a statistically significant value at the level of significance (0.01) in favor of the Public EC setting, where the Private EC setting average (47.825), while the Public EC setting average (35.637).

Table 3.

Differences in the average score for the Public and Private EC settings in Leadership

Leadership	Mean	Std. Deviation	N	df	T	Sig
Approach						
Public EC	31.667	2.590	20	36	12.95	0.01
Private EC	44.625	4.553	18			
Deployment						
Public EC	38.512	3.406	20	36	2.661	0.05
Private EC	40.195	3.661	18			
Assessment and Refinement						
Public EC	35.637	3.117	20	36	10.88	0.01
Private EC	47.825	4.780	18			

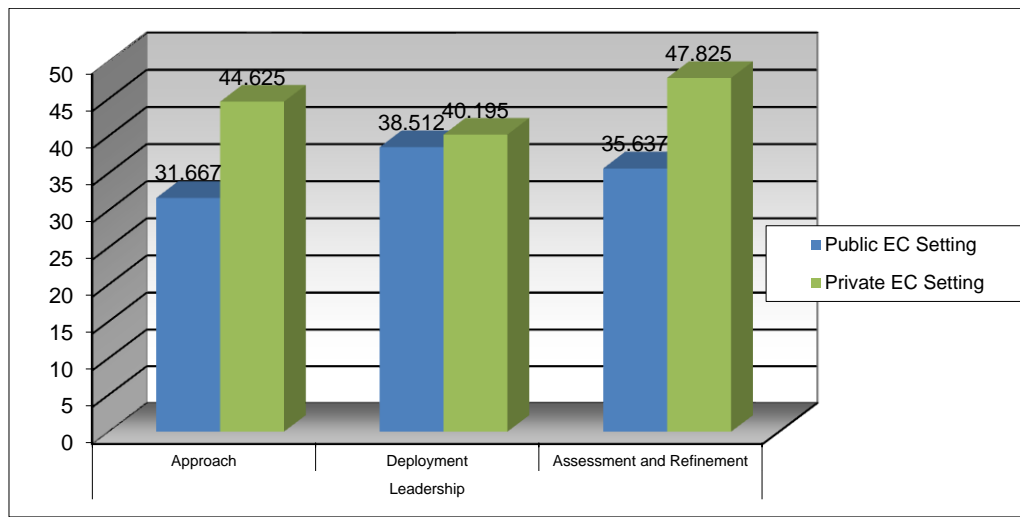


Figure 1. Differences in the average score for the Public and Private EC settings in Leadership

Overall, the vital result of the study discovered that a statistically significant influence of the leadership technique in association to clear approach, degree of approach been implemented and the assessment of the effectiveness of the approach on the accomplishment of excellence in private EC setting performance compared to the public EC setting. This finding agreed with the previous findings in relation to leadership styles and how it impact on the organization's performance (Issawi, 2016; Alsleh, 2018 & Faraj ,2018).



Standard 2: Policy and Strategy

There are statistically significant differences between the mean scores for the Public and Private EC settings in term of policy and strategy to develop, implement and review strategy that is aligned to meet the needs and expectations of the staff. To verify this hypothesis, a T-Test was applied for the Public and Private EC settings degrees in strategy (see table 4).

As shown in table (4) and figure (2) that the value of (T) was (9.142) in Approach, which is a statistically significant value at the level of significance (0.01) in favor of the Public EC setting, where the average of the Private EC setting (48.336), while the average of the Public EC setting (36.615).

In addition, That the value of (T) was (8.351) relate to Deployment, which is a statistically significant value at the level of significance (0.01) in favor of the Private EC setting, where the Private EC setting average (37,514), while the Public EC setting average (28,552) (see table 4 and figure 2).

Table 4.

Differences in the average score for the Public and Private EC settings in policy and strategy

Policy & Strategy	Mean	Std. Deviation	N	df	t	Sig
Approach						
Public EC	36.615	3.321	20	36	9.142	0.01
Private EC	48.336	4.776	18			
Deployment						
Public EC	28.552	2.004	20	36	8.351	0.01
Private EC	37.514	2.150	18			
Assessment and Refinement						
Public EC	26.413	2.192	20	36	13.347	0.01
Private EC	41.153	4.599	18			

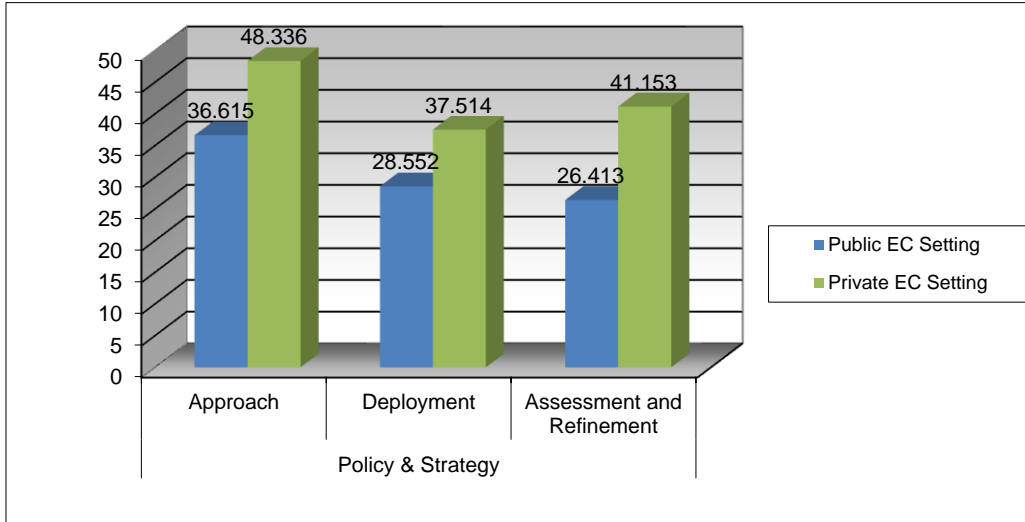


Figure 2. Differences in the average score for the Public and Private EC settings in Policy and Strategy

The value of (T) was (13.347) in Assessment and Refinement, which is a statistically significant value at the level of significance (0.01) in favor of the Private EC setting, where the Private EC setting average (41.153), while the Public EC setting average (26.413). Overall, these findings attributed to the higher degree of participation of the private EC members in the development of EC than public EC setting in term of policy and strategies.

Standard 3: People

There are statistically significant differences between the mean scores for the public EC and the private EC settings regarding how these settings operate, develop and release the potential of its people, with the aim of supporting strategy and operation the processes effectively. To verify this hypothesis, a T-Test was applied for the public EC and the private EC settings degrees in people as displayed in table 5.

As illustrated in table (5) and figure (3) that the value of (T) was (2.057) in Approach, which is a statistically significant value at the level of significance (0.05) in favor of Public EC setting, where the average of the Private EC setting (36.665), while the average of Public EC setting (34.320). That the value of (t) was (11,591) relate to Deployment, which is a statistically significant value at the level of significance (0.01) in favor of the Private EC setting. The Private EC setting average (44.442), while the Public EC setting average (30.367).



Table 5.

Differences in the average score for the Public and Private EC settings in people

People	Mean	Std. Deviation	N	df	T	Sig
Approach						
Public EC	34.320	2.882	20	3	2.0	0.05
Private EC	36.665	3.157	18	6	57	
Deployment						
Public EC	30.367	3.327	20	3	11.	0.01
Private EC	44.442	3.625	18	6	591	
Assessment and Refinement						
Public EC	27.618	2.335	20	3	14.	0.01
Private EC	41.125	3.381	18	6	045	

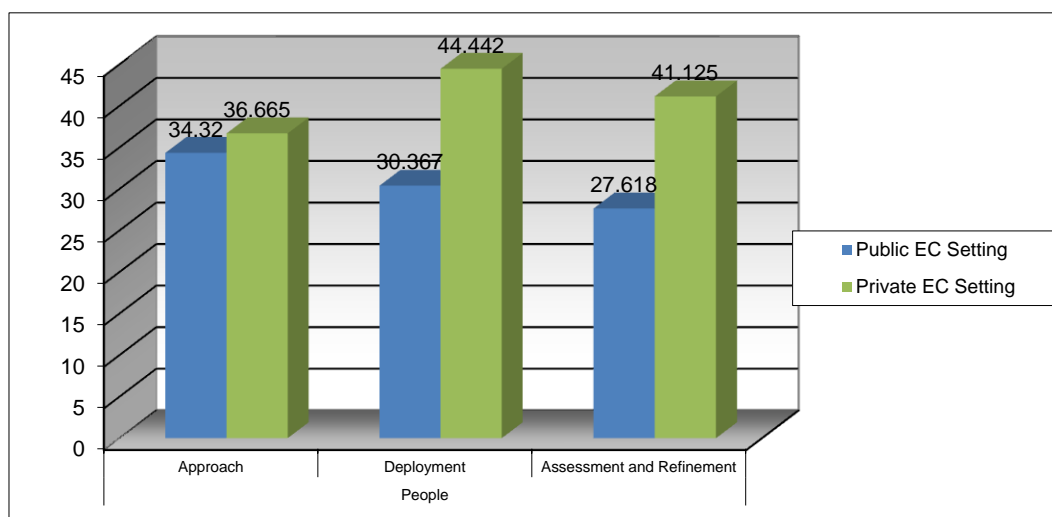


Figure 3. Differences in the average score for the Public and Private EC settings in people

That the value of (T) was (14.045) in relation to Assessment and Refinement, which is a statistically significant value at the level of significance (0.01) in favor of the Private EC setting, where the average of the Private EC setting (41.125), while the Public EC setting average (27.618). It can be noted that all means of people dimension that fall under the category of approach, deployment, assessment and refinement in private EC setting are high. These results may be clarified the lack of sufficient awareness of the staff in public EC setting concerning obtaining appropriate ongoing training plans for their training needs to support the EC strategy and operation the processes effectively in contrast to the staff in private setting. This result in line with Faraj (2018) finding that emphasized on the importance of providing the faculty or organization members with an appropriate training programs for their training in order to achieve high quality training outcomes.



Standard 4: Partnerships and Resources

There are statistically significant differences between the mean scores for the Public EC and the Private EC settings in partnerships and resources relating to the organization plan, achieve external partnerships and internal resources to assist operating strategy successfully and its processes. To verify this hypothesis, a T-Test was applied for the Public and Private EC settings degrees in partnerships and resources, and the following table shows this.

Table 6.

Differences in the average score for the Public and Private EC settings in Partnerships and Resources

Partnerships and Resources	Mean	Std. Deviation	N	df	T	Sig
Approach						
Public EC	33.33 9	3.994	20	3 6	10.66 2	0.01
Private EC	45.03 2	4.667	18			
Deployment						
Public EC	24.10 3	2.124	20	3 6	13.29 7	0.01
Private EC	39.73 6	4.230	18			
Assessment and Refinement						
Public EC	38.06 3	3.001	20	3 6	2.333	0.05
Private EC setting	40.22 7	5.162	18			

As illustrated in table (6) and figure (4) that the value of (T) was (10.662) in Approach, which is a statistically significant value at the level of significance (0.01) in favor of the Private EC setting, where the Private EC setting average (45.032), while the Public EC setting average (33.339).

In relation to Deployment the value of (T) was (13.297) which is a statistically significant value at the level of significance (0.01) in favor of the Private EC setting, where the Private EC setting average (39.736), while the Public EC setting average (24.103). In regard to Assessment and Refinement, the value of (T) was (2.333), which is a statistically significant value at the level of significance (0.05) in favor of Private EC setting, where the Private EC setting average (40.227), while the Public EC setting average (38.063).

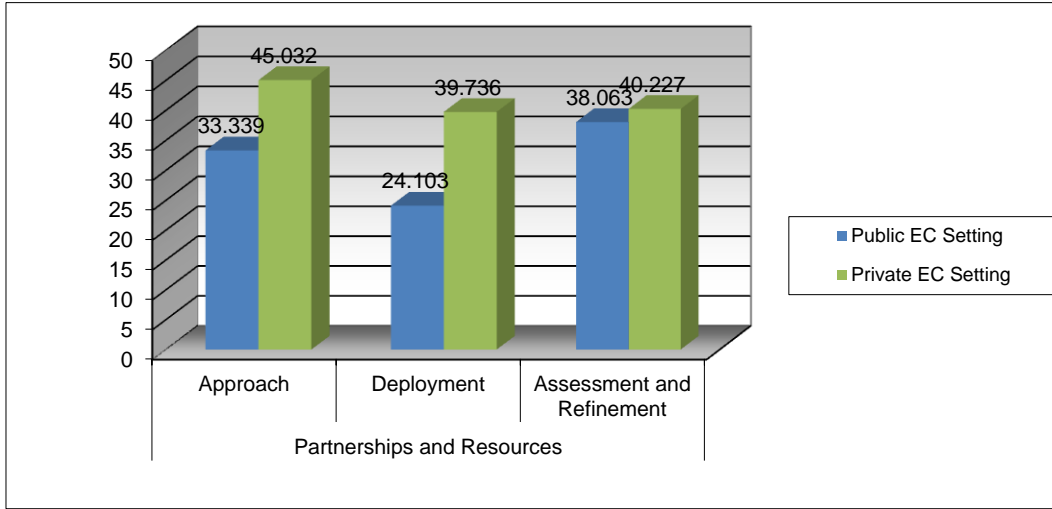


Figure 4. Differences in the average score for the Public and Private EC settings in Partnerships and Resources

Based on the current findings of this study in relation to external partnerships, private EC setting demonstrated high practices in establishing strong partnership with families, community organizations and neighboring schools which has empowered the surrounding society to make real changes. Internal resources were reported to be examined and this include the physical environment such as building, safety insurance plan, and risk assessment schedule in both private and public setting. However, private EC setting reported that internal resources had been assessed and reported on regular basis which had higher quality that public setting.

Standard 5: Processes, Products, Services

There are statistically significant differences between the mean scores for the Public and the Private EC settings in processes, products, services relating to how they plan, accomplish and improve its processes to assist strategy and fully satisfy customers (parents and other stakeholders). To verify this hypothesis, a T-Test was applied for the Public EC setting, Private EC setting degrees in Processes, Products, Services (see table 7).

As demonstrated in table (7) and figure (5) That the value of (T) was (11.119) in Approach, which is a statistically significant value at the level of significance (0.01) in favor of the Private setting. The average of the Private EC setting, (35.152), while the average of the Public EC setting (22.615). in relation to Deployment, that the value of (T) was (15.052), which is a statistically significant value at the level of significance (0.01) in favor of the Private EC setting. The average (37.142) in the Private EC setting, while in the Public EC setting was (31.129) (see table 7).



Table 7.

Differences in the average score for the Public and Private EC settings in Processes, Products, Services

Processes, Services	Products,	Mean	Std. Deviation	N	df	T	Sig
Approach							
Public EC		22.615	2.001	20	36	11.119	0.01
Private EC		35.152	3.003	18			
Deployment							
Public EC		31.129	2.811	20	36	15.052	0.01
Private EC		37.142	2.710	18			
Assessment and Refinement							
Public EC		35.512	3.015	20	36	7.164	0.01
Private EC		44.529	3.624	18			

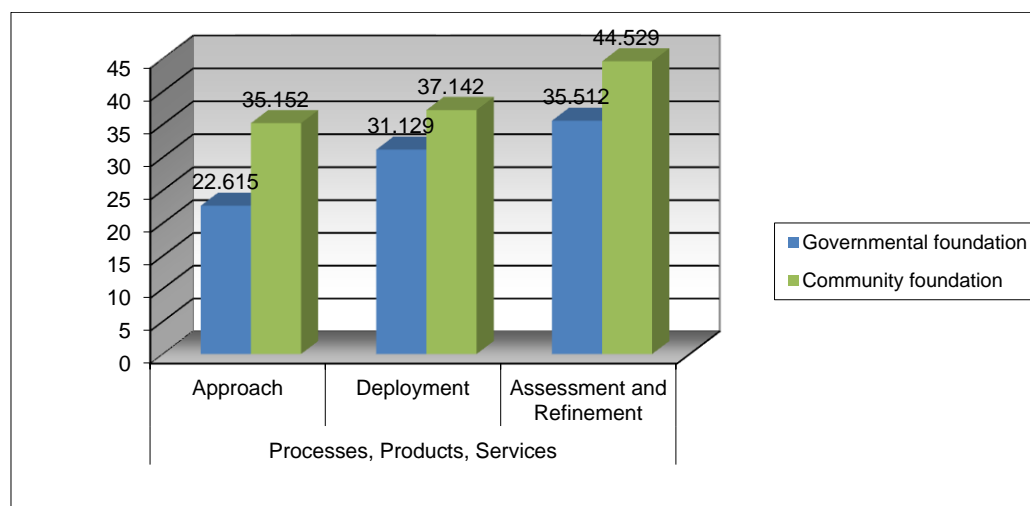


Figure 5. Differences in the average score for the Public and Private EC settings in Processes, Products, Services

That the value of (T) was (7.164) in Assessment and Refinement, which is a statistically significant value at the level of significance (0.01) in favor of the Private EC setting, where the Private EC setting average (44.529), while the Public EC setting average (35.512). Interestingly, these findings confirmed that ownership type of EC settings had great differences of the level of customers (parents) stratification relating to processes, products, services. These results consistent with the previous



finding by Sadeh and Garkaz (2015) that families pay for private subsidized setting for their children's education than at public settings.

Standard 6: Customer Results

There are statistically significant differences between the mean scores for the Public and Private EC settings in Customer Results. To verify this hypothesis, a T-Test was applied for the Public and Private EC settings degrees in Customer Results, and the following table displays this. Table (8) and figure (6) illustrated that the value of (T) was (14.004) in relation to Relevance, which is a statistically significant value at the level of significance (0.01) in favor of Public EC setting, where the average of the Private EC setting (48.006). The average of Public EC setting (34.625). The Private setting achieved higher quality standards in relation to its external customers and results found to be consistent with the strategy, needs and expectation of stakeholders.

Table 8.

Differences in the average score for the Public and Private EC settings in Customer Results

Customer Results	Mean	Std. Deviation	N	df	T	Sig
Relevance & Usability Relevance						
Public EC	34.625	3.128	20	36	14.004	0.01
Private EC	48.006	4.839	18			
Integrity						
Public EC	36.031	2.759	20	36	2.111	0.05
Private EC	38.823	3.555	18			
Segmentation						
Public EC	30.112	3.334	20	36	8.815	0.01
Private EC	40.523	4.182	18			
Performance & Outcomes Trends						
Public EC	25.528	2.134	20	36	11.113	0.01
Private EC	36.112	3.003	18			
Targets						
Public EC	30.147	2.763	20	36	8.263	0.01
Private EC	39.468	3.164	18			
Comparisons						
Public EC	32.291	3.034	20	36	10.223	0.01
Private EC	43.377	5.882	18			
Causes						
Public EC	27.763	2.154	20	36	14.938	0.01
Private EC	40.232	4.477	18			

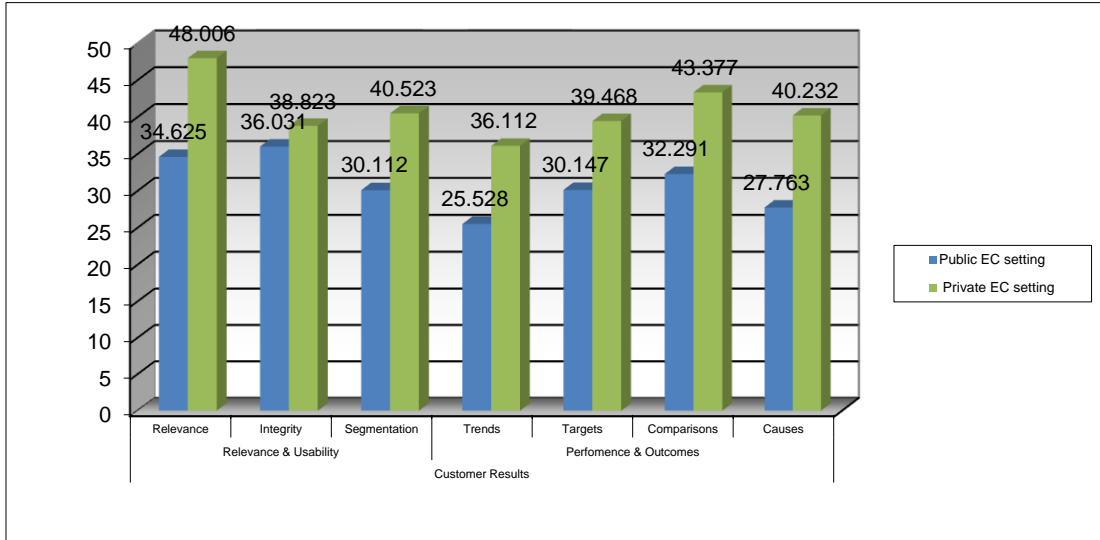


Figure 6. Differences in the average score for the Public and Private EC settings in Customer Results

Regarding Integrity, that the value of (T) was (2.111), which is a statistically significant value at the level of significance (0.05) in favor of the Private EC setting, where the Private EC setting average (38.823), while the Public EC setting average (36.031). The Private setting results were showed to be more comprehensive, timely, reliable as well as accurate in relation to integrity more the public setting.

In relation to Segmentation, the value of (T) was (8.815) in, which is a statistically significant value at the level of significance (0.01) in favor of the Private EC setting, where the Private EC setting average (40.523), while the Public EC setting average (30.112). Regarding Trends, the value of (T) was (11.113), which is a statistically significant value at the level of significance (0.01) in favor of the Private EC setting. The average of the Private EC setting (36.112), while the average of the Public EC setting (25.528). These results showed that sustained quality was formed and obtained by the staff in Private setting compared to Public setting.

In Table 8 and figure 6, the value of (T) was (8.263) in Targets, which is a statistically significant value at the level of significance (0.01) in favor of the Private EC setting. The Private EC setting average was (39.468), while the Public EC setting average (30.147). In regard to Comparisons, the value of (T) was (10.223), which is a statistically significant value at the level of significance (0.01) in favor of the Private EC setting, where the average of the Private EC setting (43.377), while the average of the Public EC setting (32.291). The value of (T) was (14.938) in Causes, which is a statistically significant value at the level of significance (0.01) for the Private EC setting, where the Private EC setting average (40.232), while the Public EC setting average (27.763). Overall, these results reflected that the Private setting was given more attention to customer's stratification (parents and children)



and ongoing improvement in their services by comparing and matching their annual report results with those achieved by external settings.

Standard 7: People Results

There are statistically significant differences between the mean scores for the Public EC setting and the Private EC setting in People Results. To verify this hypothesis, a T-Test was applied for the Public and Private EC settings degrees in People Results as illustrated in table 9.

As showed in table (9) and figure (5) that the value of (T) was (9,333) in regard to Relevance, which is a statistically significant value at the level of significance (0.01) in favor of the Private EC setting. Where the average of the Private EC setting was (38,921), the average of the Public EC setting foundation (27,790). The value of (T) was (7.425) in Integrity, which is a statistically significant value at the level of significance (0.01) in favor of the Private EC setting, where the average of the Private EC setting (42,886), while the average of the Public EC setting (35,512).

Table 9.

Differences in the average score for the Public and Private EC settings in People Results

People Results	Mean	Std. Deviation	N	df	T	Sig
Relevance & Usability Relevance						
Public EC	27.790	2.102	20	36	9.333	0.01
Private EC	38.921	3.651	18			
Integrity						
Public EC	35.512	3.607	20	36	7.425	0.01
Private EC	42.886	3.882	18			
Segmentation						
Public EC	39.445	3.436	20	36	10.159	0.01
Private EC	47.103	5.712	18			
Performance & Outcomes Trends						
Public EC	21.163	2.069	20	36	13.620	0.01
Private EC	35.320	3.117	18			
Targets						
Public EC	22.702	2.154	20	36	8.456	0.01



Private EC	32.68 7	3.214	18			
Comparisons						
Public EC	35.05 3	3.338	20	36	7.24 9	0.01
Private EC	43.15 8	4.035	18			
Causes						
Public EC	31.26 5	3.027	20	36	13.3 78	0.01
Private EC	46.99 2	5.118	18			

The value of (t) was (10.159) in Segmentation, which is a statistically significant value at the level of significance (0.01) in favor of the Private EC setting, where the average of the Private EC setting (47.103), while the average of the Public EC setting (39.445). The value of (T) was (13,620) in relation to Trends, which is a statistically significant value at the level of significance (0.01) in favor of the Private EC setting, where the average of the Private EC setting (35.320), while the average of the Public EC setting (21.163). The value of (T) was (8.456) in Targets, which is a statistically significant value at the level of significance (0.01) in favor of the Private EC setting, where the average of the Private EC setting (32.687), while the average of the Public EC setting (22.702).

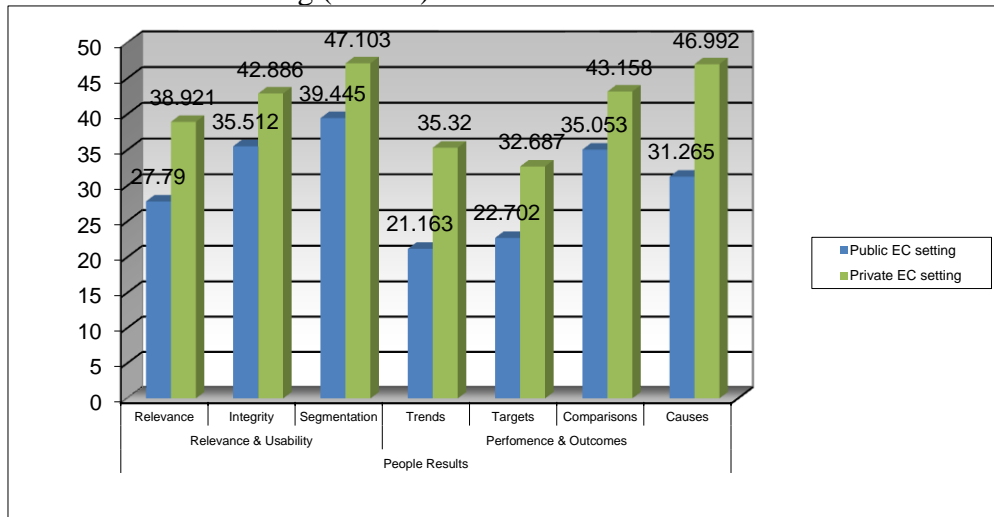


Figure 7. Differences in the average score for the Public and Private EC settings in People Results

The value of (T) was (7.249) regarding Comparisons, which is a statistically significant value at the level of significance (0.01) in favor of the Private EC setting, where the average of the Private EC setting (43.158), while the average of the Public EC setting (35.053). The value of (T) was (13.378) in Causes, which is a statistically



significant value at the level of significance (0.01) in favor of the Private EC setting, where the Private EC setting average (46.992), while the Public EC setting average (31.265).

The highest arithmetical mean relate to people results confirmed that private setting gave its people the high consideration by measuring their salinification about training programs, addressing their feedback and getting promotion to improve the quality of working environment. This result agreed with the previous findings that organization in which staff had high level of satisfactions toward their working environment, had personal growth in self-esteem and confidence (Faraj, 2002 & Farrar, 2020).

Standard 8: Society Results

There are statistically significant differences between the mean scores for the Public and the Private EC settings in Society Results. To verify this hypothesis, a T-Test was applied for the Public and Private EC settings degrees in Society Results (see table 10).

As illustrated in table (10) and figure (8) that the value of (T) was (2.712) in Relevance, which is a statistically significant value at the level of significance (0.05) in favor of the Public EC setting. The average of the Private EC setting (45.021), whereas the average of the Public EC setting (43.093). The value of (T) was (9.708) in Integrity, which is a statistically significant value at the level of significance (0.01) in favor of the Private EC setting. The average of the Private EC setting (36.200), while the average of the Public EC setting (24.772).

Table 10.

Differences in the average score for the Public and Private EC settings in Society Results

Society Results	Mean	Std. Deviation	N	df	t	Sig
Relevance & Usability Relevance						
Public EC	43.093	3.024	20	3	2.71	0.05
Private EC	45.021	4.159	18	6	2	
Integrity						
Public EC	24.772	2.113	20	3	9.70	0.01
Private EC	36.200	3.629	18	6	8	
Segmentation						
Public EC	32.169	3.527	20	3	10.1	0.01
Private EC	43.518	4.806	18	6	28	
Performance & Outcomes Trends						
Public EC	32.014	2.740	20	3	2.16	0.05
Private EC	34.100	3.201	18	6	7	
Targets						
Public EC	39.154	3.728	20	3	8.03	0.01



Private EC	47.111	4.447	18	6	0	
Comparisons						
Public EC	28.821	2.661	20	3	9.77	0.01
Private EC	40.995	4.125	18	6	8	
Causes						
Public EC	30.158	3.077	20	3	6.51	0.01
Private EC	38.150	2.982	18	6	7	

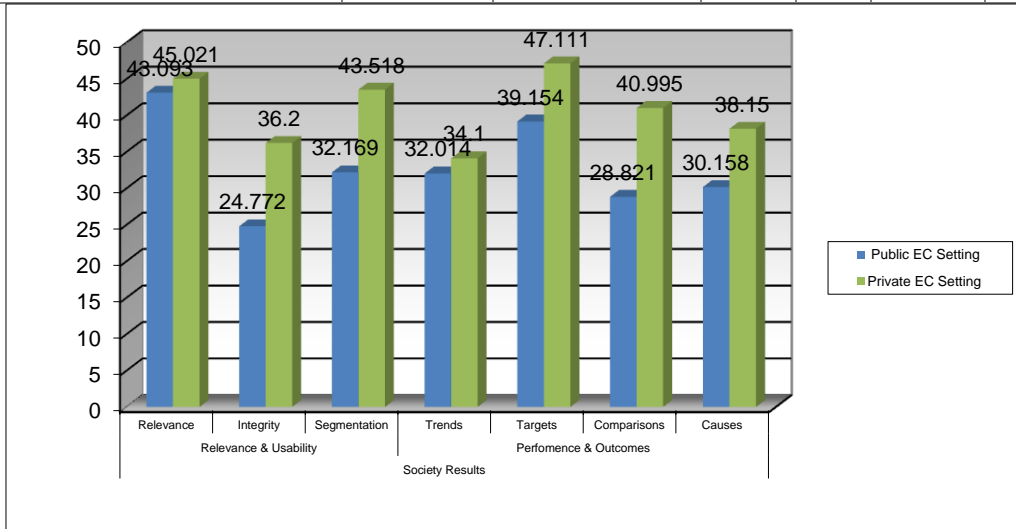


Figure 8. Differences in the average score for the Public and Private EC settings in Society Results

Additionally, the value of (T) was (10.128) in relation to Segmentation, which is a statistically significant value at the level of significance (0.01) in favor of the Private EC setting. While the Private EC setting average was (43.518), the Public EC setting average (32.169). The value of (T) was (2.167) in Trends, which is a statistically significant value at the level of significance (0.05) in favor of the Private EC setting. The Private EC setting average (34.100), although Public EC setting average was (32.014). Also, the value of (T) was (8.030) in Targets, which is a statistically significant value at the level of significance (0.01) in favor of Private EC setting. The average of the Private EC setting (47.111), while the average of Public EC setting (39.154). The value of (T) was (9.778) in Comparisons, which is a statistically significant value at the level of significance (0.01) in favor of the Private EC setting. The average of the Private EC setting (40.995), while the average of Public EC setting (28.821).

Regrading Causes, the value of (T) was (6.517) s, which is a statistically significant value at the level of significance (0.01) in favor of the Public EC setting. The Private EC setting average (38.150), while the Public EC setting average (30.158). In looking to the society results, private setting had the higher scores than public one in achieving their target in documenting their participation with the local community by involving in national events relating to children which promoted their



children learning outcomes. This result consistent with Farrar (2002) who found that the school implemented EFQM excellence model had clear improvement in empowering their participation in society activities and events effectively which influenced positively in children learning progress.

Standard 9: Key Performance Results

There are statistically significant differences between the mean scores for the Public and Private EC settings in Key Performance Results. To verify this hypothesis, a T-Test was applied for the Public EC and the Private EC settings degrees in Key Performance Results which demonstrated in table 11. As shown in table (11) and figure (9) that the value of (T) was (7.624) regarding to Relevance, which is a statistically significant value at the level of significance (0.01) in favor of Private EC setting. Where the average of the Private EC setting (42.225), the average of Public EC setting (33.337).

Table 11.

Differences in the average score for the Public and Private EC settings in Key Performance Results

Key Performance Results	Mean	Std. Deviation	N	df	t	Si g
Relevance & Usability Relevance						
Public EC	33.337	3.258	20	3	7.62	0.
Private EC	42.225	5.771	18	6	4	01
Integrity						
Public EC	38.135	3.041	20	3	2.45	0.
Private EC	40.127	4.217	18	6	6	05
Segmentation						
Public EC	22.413	2.503	20	3	11.8	0.
Private EC	34.436	3.629	18	6	03	01
Performance & Outcomes Trends						
Public EC	28.736	2.154	20	3	8.99	0.
Private EC	38.992	3.847	18	6	3	01
Targets						
Public EC	26.615	2.223	20	3	19.0	0.
Private EC	45.726	5.006	18	6	02	01
Comparisons						
Public EC	27.719	2.489	20	3	13.6	0.
Private EC	41.063	4.157	18	6	50	01
Causes						
Public EC	29.105	2.163	20	3	2.02	0.
Private EC	31.221	3.258	18	6	0	05

The value of (t) was (2.456) Integrity, which is a statistically significant value at the level of significance (0.05) in favor of the Private EC setting, where the Private

EC setting average (40.127), while the Public EC setting average (38.135). The value of (t) was (11.803) Segmentation, which is a statistically significant value at the level of significance (0.01) in favor of the Private EC setting, where the average of the Private EC setting (34.436), while the average of the Public EC setting (22.413).

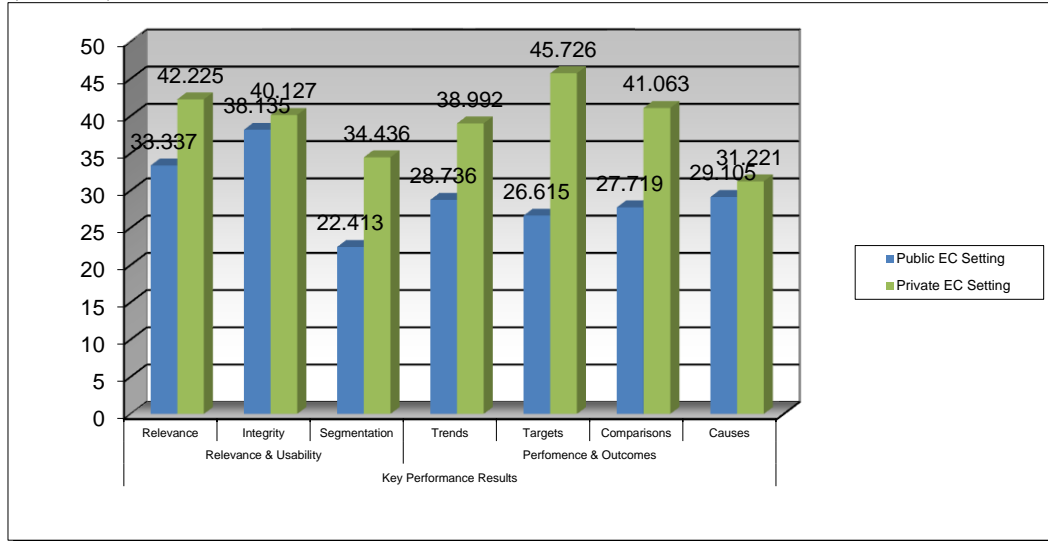


Figure 9. Differences in the average score for the Public and Private EC settings in Key Performance Results

Also, the value of (T) was (8.993) Trends, which is a statistically significant value at the level of significance (0.01) in favor of the Private EC setting, where the Private EC setting average (38.992), while the Public EC setting average (28.736). The value of (t) was (19.002) Targets, which is a statistically significant value at the level of significance (0.01) in favor of the Private EC setting, where the Private EC setting average (45.726), while the Public EC setting (26.615).

Additionally, the value of (T) was (13,650) in Comparisons, which is a statistically significant value at the level of significance (0.01) in favor of the Private EC setting. In Private EC setting the average was (41.063), while in the Public setting was (27.719). Regarding Causes the value of (T) was (2.020), which is a statistically significant value at the level of significance (0.05) in favor of Private EC setting. The average of the Private EC setting was (31.221), while the average of Public EC setting was (29.105). To sum up, these results reported the higher degree of implementing the excellence management in Private setting more than in Public one in relation to the performance results standards of EFQM.

Conclusion

Based on the results revealed in the current study, it can be acknowledged that implementing the EFQM excellence model standards had high and medium impact on TQM of the EC settings according to their ownership types. This main finding illustrated the quality standards in the field of early childhood education and gave



the settings clear insight regarding we to do next to achieve TQM. Indeed, the EFQM standards assisted these settings to clarify their vision and purposes, staff development, analyze the current situation, meeting parents' and staff stratifications and continues improving their own services and learning and teaching outcomes. The data generated in this research drew three significant contributions to the field of early childhood education in relation to achieving the high-quality standards. Firstly, results show the need to improve the EEQM standards by focusing on leadership, partnership, strategic planning and resources, continuous improvement, ongoing training, and customers' and stakeholders' satisfactions. Secondly, there is a need for increasing the all stakeholder's personal involvement as well as commitment to the practices of bringing out the improvement and convey changes. Finally, early childhood education particularly in public settings should create a mutual culture of excellence to obtain the quality in practices and make real changes in education and services. Based on these results, researchers recommend to implement similar research in the field of EC in Saudi Arabia and comparing results in order to shed the light on measuring the TQM in children education and services.

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