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Ayman Ahmed Ezzat Othman The British University in Egypt, ayman.othman@bue.edu.eg

Marwa Naguib Elwazer marwa.elwazer@bue.edu.eg

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A talent management based framework for developing sustainable quality of work life in architectural design firms in Egypt

Ayman Ahmed Ezzat Othman and Marwa Naguib Elwazer Architectural Engineering Department, The British University in Egypt, Cairo, Egypt

Abstract

Purpose – This research aims to develop a talent management (TM) based framework to achieve a sustainable quality of work life (QWL) in architectural design firms (ADFs) in Egypt.

Design/methodology/approach – A research methodology consisted of literature review, case studies and a survey questionnaire, was designed to achieve the abovementioned aim. Firstly, the literature review was used to investigate the work environment's demotivating factors in ADFs, TM strategies and process to depict the relationship between developing sustainable QWL and TM and finally explore how TM can assist in achieving Egypt's vision 2030. Secondly, three case studies of ADFs from Denmark, Norway and Singapore were analysed to investigate the role of TM in developing sustainable QWL. Thirdly, a survey questionnaire was carried out with a representative sample of ADFs in Egypt to examine their perception and application of TM towards developing sustainable QWL. Based on the results of the above, the research developed and validated a framework to facilitate the implementation of TM as an approach for developing sustainable QWL in ADFs in Egypt.

Findings – Through literature review, the research identified the highest 28 demotivating factors that affect the QWL in ADFs and grouped them into seven categories. In addition, TM strategies for sustainable business are identified and quantified. Results of the case studies confirmed the most common demotivating factors and highlighted the TM strategies adopted to develop sustainable QWL. Findings of data analysis showed that the highest-ranked demotivating factors that encounter ADFs were "poor organizational culture", "negative leadership behaviour" and "project induced stress". Furthermore, the TM strategies that have the highest rank were "performance recognition", "helping employees objectively assess their skills, strengths and weaknesses", "creating a family-friendly work environment" and "proper reward system". These findings informed the research findings and helped in the development of the proposed framework.

Practical implications – This research presents a practical framework to facilitate the development of sustainable QWL in ADFs in Egypt. It was based on the findings of literature review, case studies and survey questionnaire. The framework explained in a workable way the objectives of the framework functions; required activities; tools and techniques; involved personnel and needed resources and output. The framework was validated by representative sample of ADFs in Egypt to ensure its practicability and viability for implementation. Moreover, strategies to facilitate the framework implementation were suggested.

Originality/value – The research identified, categorised and analysed the architects' demotivating factors and defined the TM strategies and characteristics of sustainable QWL in ADFs. In addition, real life case studies validated the identified factors and investigated the most effective TM strategies in ADFs. The research tackled a topic that received scant attention in construction literature especially in Egypt. In addition, this paper developed and validated a TM based framework to achieve a sustainable QWL in ADFs in Egypt. It represents a synthesis that is novel and creative in thought and adds value to the knowledge in a manner that has not previously occurred.

Keywords Talent management, Work environment, Architectural design firms, Architects' demotivating factors, Sustainable quality of work life, Egypt

Paper type Research paper

1. Introduction

Architecture is classified as one of the creative industries worldwide. It is a talent-driven business that relies heavily on individual creativity (Galloway and Haniff, 2015; Jones *et al.*, 2004). It is an important part of the Architecture, Engineering and Construction (AEC)

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Archnet-IJAR: International Journal of Architectural Research Vol. 17 No. 2, 2023 pp. 243-266 © Emerald Publishing Limited 2631-6862 DOI 10.1108/ARCH-12-2021-0365 industry (Kamara et al., 2002). Architecture contributes significantly towards delivering sustainable projects that translate community needs into designs that specify technical characteristics, functional performance criteria and quality standards, Furthermore, it aims to complete these projects on time, within budget and as specified to fulfil clients' needs and end-user requirements (Othman et al., 2004). This highlights the critical role of architectural design firms (ADFs) in developing innovative solutions that address social, environmental and economic aspects of projects. Therefore, fostering an inspiring business environment in ADFs is paramount for developing sustainable work environment that increases talents' morale. Alternatively, Oyedele (2013) mentioned that demotivated workers tend to do less effort, produce poor quality work and spread negativity in the workplace which leads to poor work environment and performance. Accordingly, talent management (TM) strategies should be adopted in ADFs to develop a sustainable workplace that encourages motivation, enforces employees' engagement and provides work life balance. Rastgoo (2016) stated that one of the key roles of corporate management is to recognise workers' latent talents and develop a sustainable work environment that provides them with opportunities for success, development and professional advancement. Elwazer and Othman (2021) stated that TM strategies are not commonly adopted for motivating architects in ADFs in Egypt. However, due to the extremely stressful work environment in ADFs, demotivation factors discourage architects from utilising their skills and capabilities towards creating innovation solutions (Oyedele, 2013) and leads to inconsistency between work and life which impact negatively on quality of work life (QWL) (Deery, 2008). As improving the quality of life of the Egyptian citizens is one of Egypt's vision 2030 objectives, this paper aims to develop and validate a TM based framework to achieve a sustainable QWL in ADFs in Egypt.

2. Literature review

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2.1 Architectural work environment

The successful completion of construction projects in terms of achieving the client's objectives on time, within budget and as specified should be the priority of any design firm that wishes to remain in the market and compete for the future. These deliverables could not be accomplished by a design team working in the demotivating environment (Othman, 2008). The workplace environment plays an important role in determining employee's morale and motivation. This is because it encompasses all factors that shape and influence an employee's body, mind, behaviour and talent. According to Jain and Kaur (2014), the most satisfied and motivated employees are those who are encouraged by an efficient working environment, which affects both the development of their businesses and the national economy. This raises the critical question of whether architects have a quality of life that meets their needs and working conditions. Architects are often involved in a variety of tasks within their organisations. For example, these tasks include preparing project briefs, developing designs, producing technical drawings, planning and writing specifications, and creating contract documents. Architects are well-known for working long hours, which harm their social lives. They alter their lives to accommodate the schedules that their jobs necessitate. In 2005, it was estimated that architects and planners worked 39.8% of unpaid overtime. Architects typically work up to 50 h per week, which has an impact on their personal lives (Salama and Courtney, 2013). As a result, architects must work in a good business environment that allows them to achieve a state of balance and enables them to work in a stress free work environment.

2.1.1 Architects demotivating factors. The construction industry, which needs highly motivated workers, is complicated, competitive and unpredictable. The matter of employees' morale and motivation is critical because it sets a significant base for improving sustainable

work environment. The role of talented architects in developing creative solutions to address certain social, economic and environmental challenges contributes to the complexity and novelty of the architectural design process. Motivation as a set of processes that direct and sustain human capital behaviour is essential for achieving organisational goals (Greenberg and Baron, 2003). It is the knowledge base for architects in which creative conceptual solutions are developed (Oyedele, 2013). However, ADFs have various factors that could demotivate architects in their work environment. Ovedele (2013) identified 43 demotivating factors that negatively influence the performance of architects in their workplace. These factors are ranked from high to low according to the responses of the architects and divided into seven main groups. In addition, Aylap and Arslan (2016) identified 66 demotivating factors in Turkish design firms which are categorised into ten groups. Analysis of both studies identified 28 shared factors in seven groups which are organisational injustice, project induced stress, dysfunctional design team, poor interpersonal relationships, perceived career decline, negative leadership behaviour and poor organisational culture. Table 1 explains these factors and correlates each demotivating factor with the corresponding impact on ADFs.

2.2 Talent Management

2.2.1 Background and concept development. TM as a market performance driver received recognition when McKinsey & Co. coined the phrase "the war for talent" in 1997 (Collings and Mellahi, 2009). McKinsey examined a large number of administrators to find out what made the difference between good and bad organisations, and they discovered that the most successful companies had extremely capable executives. TM is a continuous process that covers talent selection, recruitment, development, retention and advancement while also meeting company objectives (Othman and Sorial, 2017; Thunnissen *et al.*, 2013).TM is a mission-critical management strategy that ensures that companies achieve existing and future goals through the quantity and quality of their individuals (Wellins *et al.*, 2009). The philosophy of TM reflects on the idea of strategic and tactical practices that enable workers to impulsively share human resource assets. The importance of TM in achieving mutual benefits between the organisation, the individual and society was emphasised (Thunnissen *et al.*, 2013). Furthermore, TM balances individual workers' work-life commitments to increase retention, achieve organisational competitiveness and enhance creative development (George, 2007; Deery, 2008).

2.2.2 Benefits and barriers of TM. A rising number of human resources professionals and academics are interested in TM. Organisations have realised that in order to implement their strategies and grow their competitiveness, they require the greatest talent at all times (Gebelein, 2006). According to Abdul-Kareem (2016), TM has numerous advantages for both firms and their employees. These benefits include reducing the recruitment, training and development costs; helping HR administrators in better understanding their staff's growth conditions, job goals, strengths and weaknesses, talents, preferences and dislikes; placement of the right candidate in the right position; maintaining and retaining high-potential/top talent staff; increasing employee loyalty, enthusiasm and willingness to outsmart their competitors and ensure their companies a market share As a result, the company's success and long-term viability would be enhanced. On the other hand, Tafti *et al.* (2017) provided four-level barriers of TM implementation as follows:

(1) Structural barriers such as lack of alignment between business and HR strategies, lack of competency model, lack of integrated HR system, and lack of specialised managers and motivational approaches.

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72	(a)	Organizational Injustice			Imp	act		
46		The idea of organizational inequality is consistent with what is described as "a person who believes that he or she has been unfairly treated" (Ambrose et al., 2002). This observation supports Sackett and DeVore's (2001) and Carr et al. (2005) claim that corporate workplace inequality contributes to employee demotivation. The factors of organizational injustice include:	Job insecurity	Weak work life	Poor performance	Increased workload	Low Morale	Low creativity
		Low participation in the decision-making process Organizational politics hinder performance and						
		success Poor working environment	_					
		Inadequate salaries and rewards						
	(1-)	Inadequate project resources			Loca			
	(D)	The increasing challenges and complexity of	~	0	Imp	act	0	~
		construction projects contributed towards escalating the level of stress and work pressure between design teams. As projects require social interaction between different parties, the misuse of strategies and teams such as repeated design changes, lack of information provision, inadequate available design time, poor coordination with clients could lead to project tension and demotivation (Othman et al., 2004; Tampoe and Thurloway, 1993). The factors of project induced stress include:	Job insecurit	Weak work life balanc	Poor performanc	Increased workloa	Low Moral	Low creativit
		Difficulty in understanding idiosyncratic and tacit						
		needs of clients						
		Poor communication within the design team Working excessively long hours	-		-			
		Frequent design changes and variations	_					
	(c)	Dysfunctional Design Team			Imp	act		
		A dysfunctional design team is a group of designers who do not usually execute or are disabled in performing their assigned tasks and activities. The causes of discord of design teams are both (i) internal community dynamics within the design teams such as involvement and expertise of members of the design team, and (ii) the social environment surrounding design teams such as inadequate organizational framework and badly defined/unclear project objectives (Oyedele, 2013). The factors of a dysfunctional design team include:	Job insecurity	Weak work life balance	Poor performance	Increased workload	Low Morale	Low creativity
		 Poor coordination between design team members Design decisions are dictated by cost and not quality. 						
		factors Inadequate commitment among design team						
	(-1)	members			l			
	(d)	Poor interpersonal Relationships Interpersonal relationships are critical for an organisational culture to thrive, especially when they are executed well. Positive and synergistic organisational cultures emerge as a result of strong interpersonal relationships. When there is negativity, confusion, and constant conflict in interpersonal relationships, the atmosphere changes. This, in turn, degrades the work environment, reduces employee talent, and harms the company's bottom line (Oyedele, 2013). The factors of poor interpersonal relationships include:	Job insecurity	Weak work life balance	Poor performance	Increased workload	Low Morale	Low creativity
		Distrust and dishonesty among design team members Descriptions of look of respect among as used used.						
ble 1.		Perceptions of lack of respect among co-workers Inadeguate co-operation among design teams						_

(continued)



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Source(s): Developed by Authors

Table 1.

(2)	Environmental barriers such as external pressure, lack of organisational stability and competitiveness, poor economic conditions, shortage of labour market and supply-demand gap.
(3)	Behavioural barriers such as cultural hurdles, expectations from elected officials, unwillingness to change and gender discrimination.

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(4) Managerial barriers such as nepotism, lack of a comprehensive approach to HR, lack of top-level support, collaboration amongst managers in TM implementation, improper recognition of the value of TM and lack of commitment to individuals' career growth and skills.

2.2.3 TM process. TM process consists of a set of phases that are structured for a streamlined implementation comprehensively. These phases complement each other and lead to an entire paradigm of TM. The TM process is composed of six phases namely, planning, attracting, selecting, developing, retaining and transitioning. The first phase in the TM process is planning. It entails several activities including, identifying gaps in human capital requirements, developing job descriptions for key roles to help guide sourcing and selection, and developing a workforce plan for recruitment initiatives. The next phase aims to determine whether the talent requirements should be filled from within the organisation or from outside sources. In either case, the process would necessitate attracting a steady stream of applicants. Job portals, social media and referrals are all common sources of attracting talent. Selection is the third phase of TM process. It includes selecting and hiring employees from amongst those candidates who have been recruited for the organisation. Within this phase many tests, interviews, group discussions and psychometric testing, as well as an in-depth analysis of all available information on the candidate are conducted to fill positions with the best candidates available promptly. The talent development phase starts after successfully selecting an applicant. Onboarding and orientation of the new employees are parts of this process. Improving new talent according to the morals, reputation and community of the industry is not only mandatory for the organisation but a central, essential component of the development and expansion of talent. Talent must be effectively retained for any organisation willing to be truly successful and sustainable. Most organisations retain their best talent by offering growth opportunities. encouraging participation in special projects and decision-making, training for more advanced roles, and rewards and recognition programmes. Effective TM focuses on collective organisational transformation and evolution through the development of individual employees. This entails making each employee feel like a part of a larger entity. Providing retirement benefits, conducting exit interviews and effective succession planning are transition tools that allow the shared journey to take place (Berger and Berger, 2017).

2.2.4 TM strategies for sustainable business environment. Employees' TM is a major challenge for many organisations in today's fast-paced business environment. The human resources department works hard to ensure that the company's activities are sustainable by encouraging employees to improve their skills. The interrelationship between TM and a sustainable work environment has a direct impact on increasing employee effectiveness. Karthikvel and Samydoss (2019) identified several TM strategies for sustainable workplace development including the following:

- (1) Empowering the workforce through providing employees with resources, authority, opportunity and motivation to do their work, as well as holding them accountable for their actions. This technique will improve employees' engagement, make them more proficient and retain top talent.
- (2) Enhancing organisation climate through providing flexible rules and procedures that encourage talented employees to think creatively.

- (3) Acknowledging the performance of talented employees through rewarding and recognising their achievements will motivate employees to achieve more and increase their loyalty and reduce the turnover rate.
- (4) Developing a career path for the employees through designing and providing opportunities for growth and improvement. This will enable the organisation to maintain its sustainability.
- (5) Maintaining a proper work–life balance between the individual and professional lives of workers. This will decrease stress on workers and give them adequate comments about their performance. It is also an important factor in the organisation's continued growth and skilled workforce support.

2.3 Sustainable quality of work life

Any organisation's success is largely measured by how well it attracts, hires, motivates and keeps its staff. Organisations today must be more adaptable if they are to grow their workforce and enjoy their dedication. They must develop strategies and implement plans to increase workers' QWL to fulfil both corporate expectations and employee goals. QWL stands for creating good quality working conditions that help employees engage in the work for a longer time and eliminate obstacles that could prevent them from staying at their job. The foundation of QWL is creating a work atmosphere that prioritises an employee's activities. This involves having in motion processes or policies that make the employee's jobless routine and more satisfying. Autonomy, acceptance, belonging, success, advancement and social incentives are examples (Eurofound, 2020).

2.3.1 Quality of work life characteristics. Several important and generally accepted considerations affecting the characteristics of QWL include safety and health of working conditions; adequate and fair compensation; the possibility of using individual talents and skills; development of human potentials; and providing career and development opportunities. Sadri and Goveas (2013) highlighted other characteristics of QWL including. Employee's attitude, job security and appropriate compensation, potentials for personal and career development, work–life balance, job nature, stress levels and leadership participatory style.

2.4 Egypt's vision 2030 and TM

According to the Ministry of Planning and Economic Development (2016), the first objective of the Egyptian Sustainable Development Strategy 2030 is improving the quality of life of Egyptian citizens. QWL is a part of the main concept of quality of life. Egypt's Vision 2030 aims to improve the quality of life of Egyptians by increasing their standard of living in a variety of areas. Egypt's Vision 2030 is a global agenda that was presented in February 2016 and represents the government's long-term action strategy to pursue sustainable growth principles and priorities in the country. Various Egyptian government departments will follow the vision. The principles of "comprehensive sustainable growth" and "fair regional development" guide Egypt Vision 2030. Adopting TM in ADFs enables improving the sustainable QWL that consequently helps to achieve a better quality of life of architects that is convenient with the Egyptian 2030 vision.

2.5 Relationship between architects' demotivating factors, TM and sustainable QWL characteristics

Architecture, as a creative industry depends on talented employees to develop sustainable projects that achieve the client needs and end-user requirements. However, architects face many demotivating factors which affect the working environment negatively and decrease

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their QWL. TM strategies play a crucial role in developing sustainable QWL in ADFs. Table 2 depicts the relationship between Architects' demotivating factors, TM and Sustainable QWL.

3. Research methodology

Achieving the research aim called for a research strategy that could gather data sufficiently rich to develop the abovementioned framework. Two approaches, namely, theoretical (literature review) and practical (field studies), were used to achieve four objectives:

- (1) First, the literature review was used to build a comprehensive background about the research topic through reviewing the architects' demotivating factors, TM, QWL and Egypt's vision 2030.
- (2) Second, three case studies of ADFs were collected and analysed to validate the architects' demotivating factors, TM strategies and sustainable QWL characteristics identified by the literature review and investigate the role of TM in developing sustainable QWL in real life ADFs.
- (3) Third, a survey questionnaire conducted with a representative sample of ADFs in Egypt were analysed to investigate their perception and application regarding the role that TM strategies can play towards developing sustainable QWL in ADFs.
- (4) Finally, based on the results derived from the previous objectives, the research developed and validated a framework to facilitate the implementation of TM as an approach for developing sustainable QWL in ADFs in Egypt, see Figure 1.

3.1 Population and sampling

The sampling plan for the survey questionnaire using a random probability sampling method was applied to the population size which was 44 ADFs registered in the Egyptian Engineers Syndicate (EES, 2019). This allowed every unit an equal chance of being included in the sample (Hannagan, 1986). This helped to select a representative and non-biased sample. To calculate the sample size, the next two equations were used (FluidSurveys Team, 2014).

$$\begin{aligned} \text{Sample Size Calculation} &= \frac{\text{Distribution of 50\%}}{\left[\text{Margin of error\%/Confidence Level Score}\right]^2} \\ \text{True Sample} &= \frac{\text{Sample Size} \times \text{Population}}{\text{Sample Size} + \text{Population} - 1} \end{aligned}$$

In this research, the confidence level chosen is 95% and the margin of error is 5%. The confidence level score corresponding to the confidence level of 95% is 1.96.

Sample Size
$$= \frac{0.5 \times (1 - 0.5)}{[^{0.05}/1.96]^2} = 384.16$$

True Sample $= \frac{384.16 \times 44}{384.16 + 44 - 1} = 39.57 \sim 40$

However, since the true sample size is only different from the population size by four; the population size would be considered entirely for the survey questionnaire. It is worth mentioning that the names of these design firms were suppressed for security according to their request.

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	Architects'	н	inpower the we	orkforce	Superior organi	e flèctive ization	Packin	er for mance to wle dge men	1 L	Development p	ath for the c	mployees	Prop	ar work-life	balance	s joλee,z	Áļ	ite tion	pment &	souele	Vature	icipatory	
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	Insidegate commitment among design team members																						
	Incompatibility of design team members																						
	Distrust and dishenesty among design team members											\vdash											
Poor interpersonal relationships	Perceptions of lack of respect among co-workers																						
	Inadopate co-operation among design teams members																						
	Work assignments do not always match employees skills and interests																						
Perceived career decline	Inadoguate opportunity for career development' promotion																						Γ
	Unhealthy competition among co-workers							_															
	Inept leadership behaviours of managers							-															
	Display of lack of interests in subordinate's work/ideas by supervisors																						
Negative leadership behavior	Inadoguate leadership support																						
	Lack of synergy between organizational goals and leadership behaviour																						
	Frequent changes of project priorities by supervisors																						
	inadequate freedom in day to day conduct of work																						
	huck of liveliness among co-workers																						
Poor organizational culture	The working environment is focused on negative criticism																						
	Inadequate planning and control in organisation							_														_	
Source(s): Deve	loped by Authors																						

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Table 2.Relationship between
Architects'demotivating factors,
TM and
Sustainable QWL



4. Case studies

4.1 Definition, objectives and analysis

A case study is a research method used to describe and analyse an individual matter, phenomenon, event or project with the purpose to identify variables, structures, forms and orders of interaction between the participants in the situation, or to assess the performance of work or progress in development (Sturman, 1997). Within this research, three ADFs were selected from Denmark, Norway and Singapore and analysed to validate the architects' demotivating factors and TM strategies and well as sustainable QWL characteristics identified by literature review in a real life ADFs. In addition, case studies will investigate the role of TM approaches towards developing a sustainable QWL in ADFs through overcoming the architects' demotivating factors. This ultimately will inform the research findings and support the development of the proposed framework. Analysis of the case studies was based on describing the case study, identifying the most key architects' demotivating factors,

specifying and assessing alternative TM approaches adopted and achieved sustainable QWL characteristics and finally drawing appropriate conclusions (Yin, 2013), see Table 3.

4.2 Case study (1): Bjarke Ingels Group (BIG), Denmark

BIG was founded in Copenhagen, Denmark in 2005. Since its establishment, the firm has had no defined organisational structure and responsibilities where everybody wears every hat. In 2007, the CEO discovered that BIG was not profitable as planned rather, he found that the firm was cash-strapped. Accordingly, several employees were laid off including the chief financial officer and a personal loan of about \$1.5 million was borrowed to save BIG. During this period, the employees had some difficulties such as lack of job security, increased levels of stress, working long hours, decreased level of creativity and morale. In 2017, BIG aimed to grow vertically rather than expanding horizontally through increasing the number of projects. On the other hand, the design team members had some obstacles in coordination, communication and inadequate commitment amongst the members. Consequently, the firm decided to develop a strategy to manage talents and improve the quality of working life. BIG's management strategy emphasised the need to perform in teams rather than working individually and to invite all employees to participate in the decision-making process. In addition, the firm's recruitment strategy hired people based on the demands of the projects and the expertise needed. To create a talent pool, interviews were conducted regularly even if BIG has no vacancies. The open-minded, straightforward, sociable and supportive leadership style played a major role in creating a powerful social community and enjoyable work environment. Moreover, employees' evaluations and promotions were based on their performance and achievements. The adopted TM approaches helped developing a sustainable QWL in the firm through overcoming the architects' demotivating factors (Grovsberg and Sesia, 2019).

4.3 Case study (2): Snøhetta, Norway

Snøhetta was originally founded in Oslo, Norway with management strategies that focused on maintaining healthy working conditions to provide architects with a creative work environment. However, the New York (NY) office has a long-hours culture that contradicts the usual Norwegian working day. Employees believe that working long hours is a sign of dedication. As a result, leaving the workplace early is a big challenge. Snøhetta views the more working hours reduce employees' creativity. The working culture in NY put its employees in poor QWL. The architects in NY's office are exposed to various demotivating factors that affected their quality of work and subsequently affected their creativity levels. Thus, the NY office decided to create a time culture similar to that of Norway through using the day working hours efficiently, offering flexible working hours, returning home at an appropriate hour. Accordingly, employees began to adjust their holiday perceptions and realised the importance of taking some time off from being sceptical of the long holidays. This was reflected positively in the transition between the time at work and family time. Furthermore, Snøhetta offices are structured horizontally to simplify sharing information amongst staff members who are working at the same open studio regardless of their positions. The social values between workers are improved by a shared kitchen table, see Plates 1 and 2 (Brandth et al., 2019; Snohetta, 2021).

4.4 Case study (3): DPA, Singapore

Design partnership architects (DPA) was established in 1967 in Singapore to produce highquality architecture that is environmentally conscious and relevant to the society it serves. DPA expanded from a single office with a dozen workers to fifteen offices with 1,200 people (ArchiBazaar, 2016). From 1984 to 1987, Singapore went through one of its worst recessions,

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Source(s): Snøhetta (2021)



Source(s): Snøhetta (2021)

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Plate 1. Open space office at Snohetta

Plate 2. Gathering tables at Snohetta

with an industrial contraction during which DPA encountered additional obstacles. Unlike many other businesses that swiftly decreased their employees to minimise operating expenses, DPA chose a unique strategy by deciding amongst the partners to renounce their pay, while the workers also made financial sacrifices to support the business as a whole. The architects faced many challenges that affected their QWL such as working long hours, inadequate salaries and rewards, and poor coordination of design teams. In 1982, the firm grew by forming two subsidiary firms, DP Design and DP Consultants. At first, the design team faced a variety of challenges as a result of the company's global expansion including poor communication and coordination between the different offices and the counterproductive behaviour between the design teams. As a result, the work environment and the quality of the employees' work were declined. Consequently, there was a widespread desire to elevate workers by granting partnership to anybody who might improve the business. TM strategies that were implemented by DPA included three main phases namely, talent

attraction, talent development and talent retention. These phases were achieved through ARCH employing the right talent at the right time, creating DP Academy as a learning and development hub for employees and encouraging the lovalty culture that gives the employees a sense of ownership (DPArchitects, 2018).

5. Data analysis 256

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This section presents and analyses the results of a survey questionnaire conducted with a representative sample of ADFs in Egypt to examine their perception and application of TM towards developing sustainable QWL.

5.1 Response rate and respondents' profile

Out of 44 ADFs invited to participate in the study, only 42 firms responded to the survey questionnaire representing 95.5% which supports the research conclusions and suggestions. Around 30 firms are sole proprietors and the rest are partnerships. The number of years of experience of these firms in the construction industry ranges from 5 to 50 years. They are involved in all types of projects including residential, commercial, medical, industrial, cultural, business, recreational and educational. The size of these firms ranges from 10 to 50 employees with architecture, engineering and construction backgrounds.

5.2 Perception of sustainable QWL

Respondents confirmed their perception of the Sustainable QWL concept, implying that the ADFs surveyed are mature. On a scale of 1–5, 30.9% of respondents rated their sustainable QWL as low (2/5) and very low (1/5), while 66.7% of respondents rated their QWL as moderate (3/5) and (4/5). Only 2.4% of respondents have sustainable QWL as high (5/5). Respondents mentioned that the "Weak work life load balance" was ranked the highest impact of poor QWL on ADFs with an average of (3.9/5) followed by "increased workload" with an average of (3.7/5), while "low creativity" was ranked the least impact with an average of (3.3/5). These results could be traced back to the stressful nature of the design process. increased responsibilities at work and home, long working hours; lack of flexibility and control over working time. These results are supported by Caven and Raiden (2010) who stated that the project based nature in the construction industry involves travel to and from projects, long hours to meet project deadlines and the need to demonstrate commitment in order to maintain employment security which ultimately leads to poor QWL and increase employees' dissatisfaction.

5.3 Perception and application of TM

The maturity of the surveyed ADFs was indicated by 97.6% of respondents who confirmed their perception of TM concepts. 42.9% of respondents stated that they implement TM strategies such as "performance recognition" and "provide proper rewarding system" using (1) non-economic approaches including fair treatment, challenging work, and meeting social needs and (2) economic approaches including financial rewards. On the other hand, 57.1% of respondents mentioned that their ADFs are not applying TM. This could be referred to the lack of specialised managers and motivational approaches, poor economic conditions, cultural barriers and reluctance to change as well as lack of senior management support. These findings are in line with Othman and Khalil (2018) who confirmed these barriers and stated that poor understanding of the role of TM towards shaping employees' careers and capabilities as well as bias to certain employees for recruitment obstruct the application of TM in ADFs.

Respondents stated that the highest factors that facilitate the successful implementation of TM in ADFs are "motivation methods and engagement", "trust and encouragement of top management" with an average of (3.9/5), followed by "growth and performance financial analysis" with an average of (3.7/5). While respondents stated that the lowest factor is "implementation of employee programmes by the HR department" with an average of (2.91/5). This is because developing a business environment based on trust and senior management support enhances collaboration between the design team and support talent development in ADFs. Oyedele (2010, 2013) agreed with these results and stated that aligning TM strategy with organisational strategic objectives facilitate the successful implementation of TM in ADFs. Respondents mentioned that the highest factor that prevents the successful implementation of TM in ADFs in Egypt is "failure to recognize the significance and importance of TM" with an average of (3.61/5), while the lowest factor was "financial barriers" with an average of (2.95/5). These results are compatible with the findings of Othman and Khalil (2018) who mentioned also that lack of senior management support and lack of motivational incentives are examples of failure factors of TM implementation.

5.4 TM ability to develop sustainable QWL

Respondents ranked on a scale of 1–5 the architects' demotivating factors. Results showed that "poor organizational culture" was ranked the highest demotivating factor in ADFs with an average of (3.74/5), followed by "negative leadership behaviour" which was ranked the second with an average of (3.71/5), where "poor interpersonal relationships" was ranked the least factor with an average of (3.21/5). This is because poor organisational culture frequently arises as a result of poor communication, a focus on profit rather than people, hyper-competition, micromanagement, or negative behaviour by executives. Low employee engagement, more absenteeism, a lack of flexibility and high staff turnover are all results of these demotivating factors as agreed by Mann (2005).

Respondents ranked on a scale of 1–5 the TM strategies that could be adopted to overcome the architects' demotivating factors and develop sustainable QWL. Results showed that the highest-ranked strategies are "performance recognition" and "helping employees objectively assess their skills, strengths and weaknesses" with an average of (4.05/5), followed by "creating a family-friendly work environment" and "proper reward system" with an average of (4.02/5). This is due to the fact that one of the most powerful motivators for employees is to be acknowledged and rewarded for their exceptional achievement. Furthermore, supporting employees in identifying their abilities, strengths and limitations aids in the development of their talent through training programmes provided by their companies, which contributes to the development of a collaborative working environment. Respondents stated that the lowest factor was "giving employees autonomy over assignments" with an average of (2.98/5). This is because, due to the nature of the design and construction process, giving employees the freedom to work in a way that suits them, deciding the pace of their work, the order in which tasks are completed, and having more control over job tasks, or even the freedom to choose when and where they do their work, is not feasible.

Respondents were asked to rank QWL characteristics that could be achieved through implementing TM strategies in Egyptian ADFs. The highest-ranked characteristics are "potentials for personal and career development" with an average of (4.12/5), "employee's attitude" with an average of (4.07/5) and "job nature" with an average of (4.05/5). This is due to the fact that when ADFs pay more attention to their employees by giving enough resources for training and professional development, their talent, attitude and work dedication improve. Moreover, personal and career development will enable ADFs to assign tasks to employees that matche their skills and abilities. On the other hand, respondents stated that the lowest characteristics are "job security and appropriate compensation" and "stress levels" with an

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average of (3.76/5). This is due to the economic situations and market demand which lead to low salaries, job instability and stress.

6. A proposed TM based framework for developing sustainable QWL in ADFs in Egypt

6.1 Definition and background

A framework is defined as a set of notions, techniques and tools in a planned outline to complete a product, process and design (EDMS, 2010). The TM Framework for developing sustainable QWL (hereinafter referred to as "the framework" or "TMFSQWL") is a proposed framework developed by this research to facilitate the implementation of TM strategies towards developing sustainable QWL in ADFs in Egypt.

6.2 The need for the framework

The TMFSQWL is needed to provide a structured plan for senior management in ADFs to overcome the architects' demotivating factors that prevent the development of sustainable QWL in ADFs in Egypt. The necessity of this framework stems from the importance to provide architects in ADFs with a conducive work environment that make the utilisation of their talent and skills. Moreover, the framework is required to fill the gap in construction literature towards the adoption of TM strategies towards developing sustainable QWL in ADFs.

6.3 Development of the framework

The development of the framework was based on the main results gleaned from the literature review, case studies and survey questionnaire. Firstly, literature review identified the architects' demotivating factors and defined the barriers to implementing TM strategies in ADFs. Secondly, case studies validated the architects' demotivating factors and investigated the most effective TM strategies used to overcome these factors. Finally, the survey questionnaire ranked architects' demotivating factors, barriers of implementing the most effective TM strategies in order to prioritise them according to their importance during the development of the framework, see Figure 2.

6.4 Aim of the framework

The TMFSQWL is an innovative conceptual business improvement tool developed to facilitate the implementation of TM towards developing sustainable QWL in ADFs in Egypt.

6.5 The conceptual description of the framework

The framework consists of five functions, namely.

- (1) Enhancing Organisational Culture.
- (2) Improving Leadership Behaviour.
- (3) Enriching Working Conditions.
- (4) Fostering Career Development.
- (5) Developing Functional Design Team.

Table 4 explains in detail the functions of the framework through describing objectives, activities, tools and techniques, involved personnel and needed resources as well as the

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output of every function. This description will enable ADFs to apply the functions of the framework in a practical way, in their process towards developing sustainable QWL.

6.6 Benefits and limitations of the framework

The TM framework presents structured procedures to overcome the demotivating factors that encounter architects in their working environment. It provides the essential approaches for developing sustainable QWL in ADFs in Egypt. Moreover, it assists in boosting ADFs overall productivity and competitiveness. However, the TMFSQWL success depends on the encouragement of ADFs to facilitate the implementation process. The application of the framework is a time-consuming process that requires full dedication from the participants. Due to the nature of the construction industry and time constraints of projects, this framework may not be welcomed and ADFs may be reluctant to conduct this integration. The lack of understanding of TM strategies and importance and the absence of governmental support may hinder the development of sustainable QWL in ADFs in Egypt.

6.7 Framework validation and strategies for implementation

In order to ensure the practicality and viability of implementing the framework, it was validated through a survey questionnaire with a representative sample of ADFS in Egypt. Out of 42 respondents invited to validate the developed framework, 30 ADFs replied representing 71.42%. Respondents were asked to evaluate the effectiveness of the functions of the developed framework towards developing sustainable QWL and to propose strategies to support the framework implementation in ADFs in Egypt. All respondents agreed that the proposed framework is an important tool that will develop a sustainable QWL in ADFs.

- (1) On a scale of 1–5, respondents' scores showed that "Enhancing Organisational Culture" was ranked the highest function with a mean of (4.83/5) followed by "Improving Leadership Behaviour" with an average of (4.8/5). This is because a shift in organisational culture accompanied by positive leadership behaviour has a significant impact on lowering stress levels, improving employee attitudes, providing competitive compensation, creating a supportive business environment and increasing employees' job security and loyalty.
- (2) Respondents ranked "Enriching Working Conditions" and "Fostering Career Development" with an average of (4.7/5) and (4.53/5) respectively. This is because both functions enable ADFs to achieve a work-life balance, enhance employees' talent, offer promotion opportunity and increase competition which ultimately develops sustainable QWL. Finally, respondents ranked "Developing Functional Design Team" with an average of (4.36/5).
- (3) In addition to their willingness to implement the proposed framework, respondents proposed a number of strategies that will facilitate the implementation of the framework in ADFs in Egypt. These strategies included raising awareness about the importance of TM and providing training sessions to employees and managers to successfully implement TM strategies and finally senior management support will provide the needed resources to overcome the architects' demotivation factors in ADFs.

7. Conclusion and recommendations

Architecture is regarded as one of the world's creative industries that rely mainly on individual's talent. It is a vital component of the AEC industry. Architecture plays a significant role in delivering sustainable projects that meet the needs of the community members through translating their requirements into designs that specify technical

Function	Enhancing organisational culture	Improving leadership behaviour	Enriching working conditions	Fostering career development	Developing functional design team
Objective	To overcome the architects' demotivating factors related to poor organisational culture	To overcome the architects' demotivating factors related to negative leadership behavior	To overcome the architects' demotivating factors related to organisation injustice and project induced stress	To overcome the architects' demotivating factors related to perceived career decline	To overcome the architects' demotivating factors related to the dysfunctional design team and poor interpersonal
Activities	Providing employees with multiple possibilities for flexible schedules that may change to adapt to employees' needs and circumstances	Adopting a democratic leadership style that engages employees in the decision- making process where their opinions are discussed freely and debates are welcomed	Encouraging employees to participate in the decision making process	Assessing employees strengths and weaknesses in order to match their skills with job requirements and develop their career paths	Recruiting the right persons for the right job and providing teams with proper training programmes and team-building techniques to build a compatible design team and enhance
	Providing employees with rotation roles where they can shift to perform new tasks for a particular time before returning to their original positions will increase employees' adaptability, commitment and enzorement	Considering the interest and needs of employees to give the feeling that they are apprectated	Providing flexible organisational roles and schedules to adapt to rapid changes in the business environment, enhance their competitive advantage and success as well as reduce long working hours	Creating a succession planning programme to assist ADFs to identify and develop talents to replace key positions in the enterprise	Giving employees autonomy to work in a way that suits their pace of work to enable them completing the required tasks homogeneously
	Giving constructive feedback will enable employees to enhance their talent	Recognising the performance of employees is a strong way of encouraging architects to enhance their talent and create supportive work environment	Creating a balance between employees' professional lives and personal lives. This is because respecting and encouraging employees' rights to have personal time with families is a powerful retention fool	Providing employees with access to mentoring, coaching and learning resources to create a sustainable work environment where employees reach their full capabilities and potentials	Furnishing employees with access to learning resources to broaden their knowledge and gaining new abilities and talents
	Creating a succession planning programme to provide a powerlu framework for identifying and developing internal talents with the specific aim of replacing key positions across ADFs	Aligning individual goals with organisational objectives to sustain employees' motivation, collaboration, cohesion and accountability	Providing proper and consistent rewarding systems across ADFs is essential for maintaining faimess and adequate salaries and rewards		Encouraging job rotation and matching individual goals with organisational objectives to develop cooperative, cohesive and loyal teams
					(continued)
Table 4. Detailed description of the framework functions					Architectural design firms in Egypt 261

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262	Developing functional design team			Develop a functional design te and enhance the intrapersonal relationship	
	Fostering career development	nagement support		Foster career development culture in ADFs, offer the opportunity for promoting employees, increase competition and productivity	
	Enriching working conditions	onnaires; Interviews and Senior ma	itects and other employees	Enrich working conditions, positive employees' attitude, reduce stress, achieve work-life balance, appropriate compensation, increase employees' talent	
	Improving leadership behaviour	msensus; Meetings; Survey questi	tments; Design Team leader; Arch rces ng environment	Improve leadership behavior, create a supportive business environment, increase job security and loyalty	
	Enhancing organisational culture	Brainstorming sessions; Team co	Talent Manager, Heads of Depart Training programmes and resour Ample time and a friendly worki	Enhance organisational culture, fewer levels of stress, positive employees' attitude and appropriate compensation	eveloped by the Authors
Table 4.	Function	Tools and	uccumques Involved personnel and needed	Output	Source(s): D

characteristics, functional performance criteria and quality standards. Furthermore, it targets to complete these projects within time, cost and quality standards. The need for innovative solutions called for ADFs to develop a motivating business environment that encourages architects to come up with novel projects. On the other hand, demotivated employees are inclined to put in less effort, develop poor quality work and spread negativity in the work environment. As a result, TM strategies should be implemented in ADFs to create a sustainable workplace that promotes talent, motivation and creativity. During this research, the literature review was used to identify and categorise the workplace demotivating factors in ADFs, TM, sustainable QWL and Egypt's vision 2030. In addition, three case studies of ADFs were analysed to validate the architects' demotivating factors, TM strategies and sustainable QWL characteristics identified by the literature review and investigate the role of TM in developing sustainable QWL in real life ADFs. Furthermore, results of a survey questionnaire conducted with a representative sample of ADFs in Egypt showed that "poor organizational culture", "negative leadership behaviour" and "project induced stress" were ranked the highest demotivating factors that encounter ADFs. Furthermore, "performance recognition", "helping employees objectively assess their skills, strengths, and weaknesses", "creating a family-friendly work environment" and "proper reward system" were ranked the highest TM strategies for developing sustainable QWL in ADFs. Based on the results of the above, the research proposed a framework to facilitate the implementation of TM as an approach for developing sustainable QWL in ADFs in Egypt. To ensure the practicality and viability of implementing the framework, it was validated through a survey questionnaire with a representative sample of ADFS in Egypt in which respondents encouraged the adoption of the framework and proposed strategies to facilitate its implementation. Accordingly, the research comes to the following recommendations to ADFs and Government to develop sustainable QWL in ADFs in Egypt.

- (1) Raising the awareness of ADFs towards adopting TM strategies as an approach for developing a sustainable QWL that enhances the talent of architects and encourages the production of innovative social, economic and environmental solutions.
- (2) Encouraging ADFs to be open and change their culture towards adopting new strategies such as TM to develop sustainable QWL through offering flexible scheduling, rotating employees' roles, providing constructive feedback and developing succession planning programmes.
- (3) Enhancing organisational Leadership behaviour through proposing democratic leadership, paying attention to employees' interests, recognising performance and matching individual goals with the organisation's objectives.
- (4) Inspiring ADFs to have motivating working conditions through providing flexible organisational rules, creating a family-friendly work environment, providing access to mentoring, coaching and learning resources, providing a proper reward system and helping employees to assess their skills objectively.
- (5) Fostering career development through matching individual goals with the organisation's objectives, creating a succession planning program and rotating employee roles.
- (6) Developing functional design team by matching individual goals with the objectives of the organisation, giving employees autonomy over assignments and rotating employee roles.

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ARCH 17,2	(7)	Providing Senior Management of ADFs with successful examples of the benefits gained through implementing TM will help to offer the needed resources and allowing the required time for implementation to ensure successful results.
	(8)	Providing necessary training programmes, technologies, infrastructure and resources to facilitate the development of sustainable QWL in ADFs.
264	(9)	Enacting laws, regulations and incentives to encourage the adoption of TM across

35 ADFs in the country and acknowledge the firms that succeed in developing a motivating work environment.

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About the authors

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Ayman Ahmed Ezzat Othman is Professor of Construction and Project Management and Head of Architectural Engineering Department, The British University in Egypt. He obtained his B.Sc. in Architectural Engineering from Assiut University, Egypt in 1991, followed by M.Sc. and Ph.D. from Heriot-Watt University and Loughborough University, UK in 1999 and 2004 respectively. Besides being an academic, he joined the Architectural, Engineering and Construction industries as an architect and project manager in different national and international design firms and governmental authorities. He is an active researcher in construction and architectural management and won various research and teaching awards in Egypt and South Africa. Ayman Ahmed Ezzat Othman is the corresponding author and can be contacted at: ayman.othman@bue.edu.eg

Marwa Naguib Elwazer is a teaching assistant at the Architectural Engineering Department, The British University in Egypt. She graduated from the same university in 2021 with a B.Sc. in Architectural Engineering with "Distinction with Honours". She was awarded a distinction for her graduation dissertation on Talent Management in Architecture and a distinction for her graduation design project on designing a Nile Preservation Complex. She presented a paper at the 3rd International Conference on "Sustainable Construction and Project Management-Integrated Management for Smart Cities," held in Cairo, 2021). Currently, she is studying her M.Sc. in Architecture at Ain Shams University in Egypt.

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