Towards the Development of a Resilient Business Infrastructure - A Military Aviation Perspective

1. Hamad Alblooshi (Aberystwyth Business School, Aberystwyth University),
2. Owain Tomos (IBERS, Aberystwyth University),
3. Andrew Thomas (Aberystwyth Business School, Aberystwyth University),

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**Introduction**

In comparison with other military defence forces, the United Arab Emirates defence force is relatively young. Established in 1971 it has quickly become a major defence force in the middle east. This rapid expansion has taken place primarily through significant investment in the acquisition of large number of civilian foreign workers which now make up an appreciable proportion of the UAE Military personnel.

However, the use of high levels of foreign workers in this crucial yet sensitive military aviation industry is a cause for concern to the UAE Government. Not only does the issue cause the obvious military sensitivities of civilians working on military equipment, but the UAE Government’s strategic plan is also to increase the number of UAE Emiratis working within the UAE military aviation sector in order to become more self-sufficient, sustainable and more resilient as a sector (SDG9). Therefore, the move to reduce the overall number of foreign nationals (non-Emiratis) working within the UAE military aviation sector and to replace them with Emiratis needs to be done through highly effective leadership and an efficient knowledge management programme consisting of future skills training but also through learning from best practice and characterizing team dynamic approaches so that the ‘workforce of the future’ can be constructed (Thomas et al, 2018).

**Background**

Correct team dynamics can give an organisation positive results in terms of productivity and outputs. Team dynamics fosters improvements in motivation, innovation, and knowledge-sharing across the organisation (Georgiadis, 2014). Therefore, the aim of the research is to critically analyze the differences in performance between a diversified workforce (non-Emirati) and Emirati only teams and to identify the impact on overall team performance and team dynamics in the UAE military aviation industry. The outputs of this work will then enable the researchers to characterize team dynamics between diversified and non-diversified teams and to identify best management practices for developing optimal performance from these teams as well as identifying best practice for future training and development of the workforce (Lumpe, 2008, Moingeon & Edmonson, 1996).

**Research questions and overall approach**

The research approach adopted focusses upon the application of two techniques aimed at assessing overall team performance and dynamics within the Maintenance Repair and Overhaul (MRO) military Air Force Base in Abu Dhabi. Ten working groups consisting of five personnel each were established, five Emirati only groups and five non-Emirati (mixed nationality) groups. These groups were selected from each aircraft type and their work observed and measured by undertaking similar aircraft maintenance tasks. The teams then were exposed to a two-stage experimental study.

Stage one of the study consisted of applying Group Consensus Theory (GCT) to each of the teams in turn. The GCT consisted of a set of 30 questions asked to each member of the teams. These questions required the respondent to mark on a Likert scale (1-5) their agreement or non-agreement to 30 statements that probed their team approaches, how they interacted with their team leaders, what type of support and the level of innovation that they were allowed to employ within their work environments. The graded questionnaires were then analysed and the second part of the GCT was enacted. This consisted of a focus group arrangement with each team separately where the teams were able to discuss the overall responses and provide feedback and discussion on the reasons why they scored the way they did.

The second stage of study consisted of measuring and observation of the teams in their working environment where an Overall Team Effectiveness (OTE) calculation was used to measure team performance. OTE consisted of measuring *Availability* of staff, *Performance* of the staff whilst working Throughput) and, *Quality* of the work undertaken. The GCT scores and the OTE scores were then assessed together (See Figure 1 for schematic of process). The subsequent analysis undertaken led the research team to answer the following research question. *“What are the group dynamics and performance characteristics of the Emirati team compared to the diversified team?”*

Stage 2 Study

OTE

Stage 1 Study

GCT

Focus Group

Questionnaire

Comparison of Results and Conclusions

**Figure 1 – Overall schematic of research process**

**Results**

Figure 2 shows the outputs of the GCT and OTE from the BL aircraft type. This represents one aircraft type and one team made up of Emiratis only and another team consisting of mixed nationalities. Of note, the Emirati teams felt that strong and effective leadership took place to ensure that no problems were left unattended (as seen through high score in variables 04,09,21) whereas the non-Emirati teams felt that their strengths lay within being given more freedom to develop their own work and contribute more effectively to the overall team environment (as seen in high scores being apportioned to variable 02, 05, 22 and 25-29).

**Conclusion/implications**

The differences seen in the variables shown in the GCT can provide the basis for managers to design and develop a unique management model going forward. The Emirati teams are military personnel and therefore were subjected to a military style of leadership often limiting effective management and innovation flows to occur. The variables from the non-Emirati teams show their greater freedom to exercise control over the own work and the OTE calculations supported the issue that greater performance was seen as a result.

Chart, radar chart

Description automatically generated

**Figure 2 – Results of the GCT and OTE for the BL Aircraft Type**

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