An Assessment of Maintenance Management Practicies in Palestinian Industries

Ramiz Assaf
Department of Industrial Engineering
An-Najah National University
Nablus, West-Bank 00970, Palestine
ramizassaf@najah.edu

Tamer Haddad
Department of Industrial Engineering
An-Najah National University
Nablus, West-Bank 00970, Palestine
t_haddad@najah.edu

Yahya Saleh
Department of Industrial Engineering
An-Najah National University
Nablus, West-Bank 00970, Palestine
ysaleh@najah.edu

Mohammed Othman
Department of Industrial Engineering
An-Najah National University
Nablus, West-Bank 00970, Palestine
m_othman@najah.edu

Abstract

Now-a-days, excellence in maintenance management practices is considered one of the important pillars of successful organizations. Without a proper maintenance management system, the ability to meet demand on time, comply with customer specifications and being able to run the plant at minimum cost cannot be achieved together. In Palestine, a country under occupation and harsh economic conditions, the status of the maintenance management practices in the Palestinian industry is unknown. However, most of the companies are surviving although of the unfair and competitive economic environment due to the Israeli occupation and closers. To assess the current status of maintenance management practices in Palestine, structured interviews with 32 managers of different companies/and industrial sectors were held. The results of the interviews show that about 44% of the companies have maintenance departments and perform manually some level of maintenance planning and scheduling, however they lack a clear maintenance management strategy. The results also show that most maintenance management practices found in the Palestinian industries include: the use of spare part inventory management system, heavily depending on outsourcing, the use of preventive maintenance, the use of root cause analysis for failure diagnostics and upgrade maintenance for improving machines’ reliability.

Keywords: Maintenance management, Palestinian industries, interview, assessment, Maintenance engineering
**Biography**

**Ramiz Assaf** is an assistant professor at the Industrial Engineering Department at An-Najah National University since January 2012. He earned his BSc in Industrial Engineering from An-Najah National University (2005), MSc in Engineering Management (2009) and PhD in Mechanical Engineering (2012) from Politecnico di Milano, Italy. His research interests include: Design and analysis of Manufacturing systems, performance evaluation and Manufacturing systems’ output variability. He is currently the faculty advisor of the IIE chapter of An-Najah National University.

**Tamer Haddad** is currently an instructor of Industrial Engineering at the Department of Industrial Engineering, An-Najah National University. In addition, he is the supervisor of practical training students of the department. He received his B.S. degree in Industrial Engineering from An-Najah National University in 2004 and his M.S. degree in Industrial Engineering – Management from Jordan University in 2010. His research interests include Operations Management, Systems Simulation, Maintenance Management, and Quality Control and Management.

**Yahya Saleh** is currently an Assistant Professor of Industrial Engineering at the Department of Industrial Engineering, An-Najah National University. In addition, he is the director of An-Najah Business Innovation and Partnerships Center (NaBIC). He received his B.S. degree in Industrial Engineering from An-Najah National University in 2000 and his M.S. degree in Industrial Engineering and Engineering Management from Jordan University in 2003. In 2011, he received his PhD degree in Industrial Engineering and Operations Research from Bilkent University, Ankara, Turkey. His research interests include Operations Research, Applied Game Theory, Supply Chain Management, Dynamic Programming, Maintenance Management, Water Resources Optimization and Management, Life Cycle Assessment of Products/Services and Human Factors & Ergonomics.

**Mohammed Othman** is an Assistant Professor, Coordinator of Master of Engineering Management and Head of the Department of Industrial Engineering at An-Najah National University, West Bank, Palestine. He received his bachelor’s degree in Industrial Engineering from An-Najah National University, Palestine in 2002. Then, he received his M.A.Sc. degree in Industrial Engineering from Concordia University, Montreal, QC, Canada in 2008 and PhD in Industrial Engineering from Concordia University in 2012. His research interests include product design and development, production planning and scheduling, human factors and optimization.