



**The Factors Involved in Utilizing e-Municipality and Municipal
Wireless Network (MWN) Technologies for Effective, Efficient
and Productive Use of City Resources in Municipal
Governments in the Information Age**

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BY

Mustafa CORUH
Kdz. Eregli, Turkey

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ABSTRACT

The purpose of this thesis is to research two Internet Technologies for a city, Electronic or Digital Municipality (e-Municipality) and Municipal Wireless Network (MWN) systems, from the Municipal Government's perspective and the importance or effects for Effective, Efficient and Productive (EEP) resource usage by Municipal Governments (MG), Non-Governmental Organizations (NGO), local firms, and the public. The expected results are sustainable, healthy, wealthy, happy and fair city life for all city stakeholders and accountable, transparent and democratic city management. By having MWN and e-Municipality services, MG can facilitate EEP resource usage in its operations and help city stakeholders to improve the city's three competitive advantage factors: productivity, innovation and entrepreneurship. The targeted entity of this research is MGs but the research results can be used by all type of Local Governments (LG): county, municipal, city, provincial and even regional governments.

The Introduction explains the global changes that relate to Municipal Governments. These changes are: an increase in World population, the Industrial Revolutions, the IT Revolution, the effects of IT on unemployment, the Internet, the rise of the Information Society, global competition among metropolises, not nations, and the effects of new technologies on organizational management and decisions of geographical or spatial place of an organization.

Then the paper presents the four MG main problems:

1. Insufficient resources,
2. No autonomy from the national government,
3. Unsustainable development,
4. Ineffective, inefficient and unproductive use of resources.

The paper introduces solutions to help solving the fourth MG problem: "Ineffective, inefficient and unproductive use of resources", and proposes to use MWN and an e-Municipality system as

two of the technological solution tools. At the end of the Introduction section, the significance of the study is elaborated.

The external (social-cultural, economical, technological and political-legal, and regulatory) and internal (management model, management tools, information management tools, and city transformation processes) factors that hamper Municipal Government from utilizing effective, efficient and productive city resource usage are explained in the Literature Review.

In the Research Methodology, the paper introduces a city management model (Figure-3.1), a framework (Figure-4.4), and a city transformation process (Figure-4.1) for solving the “Ineffective, Inefficient and Unproductive (IIU)” use of resources problem by using e-Municipality and MWN. The paper offers a 9-step implementation process.

The collected raw data of Turkish Municipal websites, Kdz. Ereğli Internet user survey, and interviews with Zonguldak province mayors are introduced and analyzed in the Data Collection section of this paper. The goal of the survey and the interviews are not to prove or refute the question of this thesis, instead, the survey’s results present a current view held by the public and mayors to better understand the e-Municipality and MWN infrastructure. The collected data is analyzed and findings are elaborated with statistical graphs and comparisons. The research limitations, key assumptions and delimitations are also explained in the Research Methodology section of this paper.

In the final section, the summary of conclusions and recommendations are given for solving ineffective, inefficient and unproductive use of local resources in MG for the city stakeholders.