A CMM Assessment of Information Systems Maturity Levels in Botswana

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ABSTRACT: *The maturity of information systems (IS) in corporate organizations has become crucial in influencing the maturity and effectiveness of other functional programs such as marketing, finance, production, and human resources. This study examines the maturity levels of IS in corporate organizations in a developing country, using the Capability Maturity Model (CMM). The results show that most parastatal and large organizations reside in the high echelon of IS maturity, while public and small organizations are still in the low levels of maturity. Majority of the organizations do not utilize the CMM software principally due to lack of knowledge of its existence. Furthermore, the study shows that the effectiveness and control of an organization's software processes and services improve as organizations move up the maturity levels.*

KEYWORDS: *Information Systems, Capability Maturity Model, Software, Key Process Areas, Software Process Improvement.*

1. Introduction

The information systems (IS) field is experiencing a tremendous rate of growth and divergence simultaneously. Our current information society is based on the premise that the use of electronic information will bring improvement in the quality of life of people. Information technologies (IT) pervade almost every aspect of daily life, necessitating constant assessment and evaluation of the impacts of technology on the society. Despite the popular association of information technology with business process improvement (BPI) and business process re-engineering (BPR), little research appears to have been done on how IT actually co-operates with business processes to improve their process capability (Hinks, 1998).

It is a fact that different types of information systems are developed for different purposes and the organizations differ in size and their information systems development capabilities; therefore there is no silver bullet universally true for any information systems development task. Progress has been made in developing participative approaches in which different stakeholders can raise issues related to the value that they attribute to information systems (Remenyi, White and Sherwood-Smith 1997). However, little has been said about the importance of understanding the context of relations in which