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Improving Bespoke Software

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ABSTRACT

Software development has had much comment over the last two to three decades; large research organisations such as the Standish Group have carried out several empirical studies that measure the success rate of software projects as they have typically been unsuccessful over time. An integral part of any software development project is the software estimation process which establishes project scope; within the scope of the project are a number of key parameters which assist in mapping out the entire project.

The objective of this research report is to focus on software estimation in South Africa and how software practitioners in the country are approaching the formidable task of software estimation with the aim of improving this process and the number of successful software projects. Bespoke software development is the focus area of software development in the report. The research was conducted by way of one-on-one interviews with software practitioners who had bespoke software development knowledge relative to a certain size project value and experience. The report findings represent the perceptions and viewpoints of the respondents.

It was established from the findings that the approach to software estimation in South Africa is largely done on an informal or unstructured basis, that estimation which is done on a more formal basis is done using the expert or experience based technique. The respondents were only able to identify two other forms of estimation, neither of which appears to be used in South Africa.

The influence of business interests upon producing the final estimate and price to the customer is powerful and often compromises the objective of the estimate. South African software vendors do however employ the best practice of revising their estimates after inception of the project and are able to manage the uncertainty element of the project more effectively in this way. Given the relative inexperience of the software vendor community in South Africa they were somewhat unaware of the international practice of combining estimation

techniques even though they agreed that it may be a solution towards improving the estimation process overall.

South Africa appears to be uneducated as to the majority of theory and application surrounding the use of various estimation techniques. This fact may simply be because the country is still developing behind first world countries that have already overcome this learning curve and progressed from that point. While there are many experienced software practitioners in South Africa there is no indication of the estimation processes evolving so that software estimation can progress to a more professional, formalised level.