Evaluating the implementation of the National Information and Communication Technology Policy (NICTP) 2012–2017 in Sāmoa: A review of the literature.

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Introduction

Information and Communication Technology (ICT) is a powerful tool that helps organisations participate in the global market through promoting political accountability, improving service delivery and enhancing development. Its use is becoming progressively more widespread throughout the political, social, economic and cultural development of various countries (Purnomo et al 2010: 1). What better way in this new era and age to reach out to citizens through these technologies? This technological advancement has become a tool for empowering citizens by giving them access to information as well as enabling community participation. However, the development and implementation of policies to guide the advancement of this tool has been challenging. This paper will discusses these challenges and related strategies as stated in the relevant literature.

ICT policy development and analysis: a review of existing studies
Benefits of ICT and related policy development

ICT is a powerful tool intended to drive achievements of the Sustainable Development Goals 2030 Agenda. This is reflected in Article 19 of the Universal Declaration of Human Rights, which stipulates; "*Everyone has the right to freedom of opinion and expression, this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media regardless of frontiers.*" (FAIDP 2010: 2). The Framework for Action on ICT for Development in the Pacific—FAIDP (2010) stated the importance of drawing people into this declaration and effectively engage to reap the benefits of the future through the use of ICTs. Studies based on the experience of Asian countries indicate the benefits of incorporating ICT tools into education. For instance, Singapore's advanced Master Plan for IT in Education (MPITE2) instituted a number of reforms in 2006, where changes were made to prepare students to be part of the country's knowledge economy (Kozma 2008). With all the set goals any national ICT Plans may have, the economic growth and productivity depend on well articulation of specific ways to deploy ICT support. Stakeholders in Singapore have been called in to make use of such potential in ICT in education. Similarly, the Malaysian Ministry of Education, deemed a tool to revitalise learning in modern ways by looking at the main policies that encourage 'the empowerment of learners'. Titled 'Malaysia's National Philosophy of Education', it aimed at the same reform goals to enhance pedagogies and promote effective school structures as well as 'using a phased approach' in the Smart Schools project. India reshaped the curriculum for its schools by providing computers and professional development for teachers. This was vital to the implementation of ICTs. Teachers would act as facilitators of learning and help students become the best trainers and to think for themselves (Lallana 2004).

The increase in availability and accessibility of mobile networks in the Pacific region is providing social and economic opportunities in many Pacific islands. The increased liberalisation of the telecommunications sector in a number of these islands, over the last few years, has improved the reach, quality, availability and affordability of communication, especially mobile telephony services. Many mobile phone networks in the Pacific now have the capacity to leverage developmental progress, for example, providing rural financial services, assisting in disaster relief, fighting corruption and improving health services (FAIDP 2010: 3).

Challenges of ICT and related policy development

Evidence shows that the development of ICT has been challenging. Implementation status of ICT policies in education in various countries around the world showed challenges in implementation. A study in Namibia (Ngololo et al 2012) stated challenges relating to literacy, which hindered peoples' understanding of their ICT policy. A similar study looked at the status of ICT for education in Chile (Ngololo et al. 2012) which confirmed a quick implementation of its policy effectively which was framed around a results-oriented environment. A combined top-down and bottom-up approach strategy monitored the accessibility of rural schools to ICT expansion. Alinaghian (2011) believes that any ICT policy should be better aligned and compatible with national goals and aspirations. Another study in Ghana on implementation status of ICT concentration in rural schools also identified challenges such as computers not being well utilised. In the Asia Pacific region (Chacko 2004), one of the fastest growing in terms of ICT successes and growth, still have impediments on economic, political, cultural and social growth.

Some authorities have also indicated political and attitudinal constraints. Although e-government (Dwivedi et al. 2009) has taken off as the primary enabler for transforming the way government services are offered to citizens in developed countries, government officials still have a lot to learn in terms of crafting ICT policies and implementing ICT tools efficiently (Chacko 2004). There is little understanding, by some government officials holding decision making powers, of the significance of ICT in government and how ICT can be a cost effective way to implementing government processes. Consequently, they fail to embrace the opportunities that ICT presents and to meet the public's ICT needs and expectations (Dwivedi et al. 2009). Another challenge facing governments is not being able to include relevant stakeholders in policy development consultations. Many national strategies are unrealistic and do not reflect public priorities (Chacko 2004).

Having ICT policies is necessary to the successful development of ICT in the Pacific region. Sāmoa's NICTP reflects the government's vision of ICT for all. This document is a framework pinpointing ICT priorities of various sectors and government and sets out five goals for the period 2012–2017. These goals are based on the key themes of accessibility, capacity and community (Ministry of Communications and Information Technology [MCIT] 2002–2017). Even though there have been achievements in meeting the target goals of the NICTP from 2012–2017, MCIT, which is responsible for the monitoring and evaluation of this policy, has also faced some challenges. Lack of adequate infrastructural support, inadequate human resource capacity and the high cost of internet are some of these challenges.

Evaluating ICT policy development: A way forward

The development of ICT continues to face challenges in many forms thus signalling the need for evaluating ICT policy development and implementation. Alinaghian et al. (2011) in a study argue that the lifecycle of an ICT policy serves as the central nervous system which has four components: development, implementation, monitoring and evaluation. The development phase outlines all the required processes in ICT policy formulation (Mashinini 2008). The implementation phase outlines all the necessary processes in ICT policy awareness raising, training or education, interfaces mediation or adoption (Kalika 2007) and enforcement (Alinaghian 2008). ICT policy monitoring outlines all the processes required in environmental scanning to ensure users' requirements satisfaction and value adding. Monitoring helps measure ICT policy against defined goals and ensures that goals have been achieved. At this stage, the gaps during implementation are identified, which then results in making potential adjustments in order to address problems and close gaps.

The last phase of the ICT policy life cycle is evaluation (Alinaghian 2007). Evaluation processes measure and recognize internal and external elements that impact on the policy, such as changes in

political landscape, economic issues, social challenges, technological challenges and internal regulations and so on (Mashinini 2008). However, issues can arise at the implementation phase. In such cases, the implementation of an ICT policy may be unsuccessful. The literature also indicates that ICT policy monitoring cannot take place if an ICT policy has not been implemented. ICT policy evaluation is only achieved if ICT policy has been implemented and monitored. Thus, failure at the implementation phase stops the ICT policy life cycle. Additionally, a delay in ICT policy implementation might require policy amendment or re-formulation. Studies indicate that management of the ICT policy development life cycle provides insightful understanding of issues and risks and the situation be presented in a dashboard format enhancing interpretation and expediting decision-making processes (Mashinini 2008).

The Pacific Islands given its vast, and scattered geography are facing costly measures where strategic leadership and commitment are needed to integrate the social, cultural and political information to help people become proactive in their daily lives. In the same report by FAIDP (2010), a Communication Action Plan was noted alongside the PI ICT Policy and Plan and most recently the Pacific Plan Digital Strategy provide direction for this development. The PIs are not alone as the International Telecommunications Union (ITU) would lend a helping hand to make necessary assessments whether the application of ICTs are contextualised appropriately to such a vast and diverse region.

Conclusion

To conclude, ICT has played a significant role in transforming societies today as evident in the Asia-Pacific regions. However, the development of ICT has not been without challenges and as this paper has revealed, ICT policy development and analysis are crucial aspects of addressing such challenges. The role of government in ensuring participatory processes, offering infrastructural support and improving human capacity and awareness of the benefits of ICT is significant.

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