

Papua New Guinea (PNG) is witnessing an onslaught of information and communication technology (ICT) services, courtesy of Digicel — a new and dominant player in PNG's ICT market. Digicel has a major market share of more than 80 per cent combined for mobile phones and mobile data in PNG, supplied via an extensive network of 1,100 towers across the country (Morley 2014). Digicel has recently moved into other areas of telecommunications, acquiring companies in television broadcasting and narrow-casting, and also has a keen interest in fibre-optic infrastructure (Digicel Group 2014).

Digicel's monopoly, already problematic, is going to intensify as it expands into other ICT sectors, creating a huge regulatory challenge. Meeting this challenge is essential to ensure that the potential of ICT for the development of PNG is realised. This *In Brief* discusses the current state of regulation in this industry through focusing on the issues of interconnection arrangements, infrastructure sharing and number portability between operators in PNG. These aspects require regulatory diligence to prevent market abuse (Punaha 2012). Lack of competent regulations may lead to a regulatory vacuum where operators and citizens may be subject to the whims of the incumbent — in this case, Digicel.

In the context of a restricted telecommunication market, competition was endorsed through National Executive Council decision 257/2005, paving the way for Digicel's entry. Competition greatly increased access, and reduced price — for example, SIM cards were sold for AU\$20 as opposed to the previous monopoly price of AU\$80, and call rates dropped by 70 per cent (Stanley 2008). From the very beginning of the deregulation process, however, there have been controversies as the regulator grappled with increased demands in managing and allocating frequency spectrum and numbering resources required for the installation and operation of network (O'ome 2010).

A few months into Digicel's operations the regulator, National Information and Communication Technology Authority (NICTA), attempted to revoke Digicel's license, probably acting under political

pressure. The action demonstrated lack of regulatory independence because NICTA is directly subordinated to the minister's department. The action by NICTA had other possible implications, such as investor insecurity, which may have been the reason that the third licensed operator, GreenCom, failed to rollout. However, Digicel used its experience from 33 markets, and expeditiously provided widespread coverage and made available cheaper mobile phones, thus garnering public support to keep its license.

Currently, there are three mobile operators in PNG: B-mobile, Citifone, and Digicel. Digicel holds more than 80 per cent of the market share, with an effective monopoly. B-mobile has presence predominantly in urban areas with cheaper rates for calls made within the network. However, making calls between Digicel and B-mobile rates are higher, causing customer complaints. Some claim that it is cheaper to call the United States from PNG than calling Digicel users from B-mobile (Ramamurthy 2014). Irrespective of whether such claims are true or not, ongoing investigations to monitor and act on any discrepancies are the *raison d'être* of ICT regulations. The status quo may give rise to adverse outcomes, from cost shifting to monopolistic and predatory behaviour.

Fair and non-discriminatory interconnection arrangement between operators is critical in ensuring that citizens enjoy a full range of services at fair prices. Technical standards concerning interconnection should be enforced diligently so that quality of service is maintained between all networks. Intentional non-compliance on standards of interconnection may lead to lower quality of service with more serious aspects being lower value in choice and price. Intentionally lowering the quality of interconnections by the dominant operator can lead to increased dropped calls. The current regulatory inaction on these aspects leads to lower quality in calls and higher prices between B-mobile and Digicel (Ramamurthy 2014).

The sharing of critical infrastructure such as towers and sites can have benefits for citizens and may

contribute to the overall economy by enabling all operators to extend their coverage. Rents for infrastructure such as towers and repeater sites should be fair and based on efficiently incurred costs. The objective should be to achieve non-discriminatory access to infrastructure by all operators, while ensuring that all incurred costs are equitably shared between operators. Infrastructure sharing remains unregulated, resulting in denial of requests for access by dominant players (Ramamurthy 2014).

It is important for citizens to be able to keep their numbers when changing their service provider. For businesses, this is essential, as customers need only remember the same number even when the business changes its service provider. The current numbering plan by the regulator does not support the capability to provide number portability. Therefore, operators are allocated a different range of numbers, leading to inefficiency and wastage.

Digicel's monopoly is extending beyond mobile phones services by buying into other ICT businesses. Digicel now has access to five of the six ICT sectors in PNG. Its dominance in the mobile market means it is likely to also dominate the additional sectors over time. This means that Digicel will effectively control the ICT industry in PNG. This monopoly raises the real likelihood that consumers will not benefit from the competition the deregulation process was meant to introduce, with associated likely impacts on price and choice, as we arguably see in the mobile phone market currently.

To date, the broadcasting and narrowcasting portfolios have thrived with a number of participants both with commercial and non-commercial purposes. Narrowcasting offers multimedia content to narrow audience mainly in urban centres. Digicel has recently acquired Hitron (narrowcaster) and Channel eight, a long-time cable television service provider. This is in addition to the acquisition of Remington, a company supplying very small aperture terminals to afford ICT connectivity into rural areas of PNG. Already a monopoly mobile operator, Digicel now has significant presence in internet businesses with broadcasting and narrowcasting supplied through DigiTV.

Citizens have embraced the availability and accessibility of mobile phones, although the issues of

affordability and quality of calls remain (Moros 2012). The expansion of Digicel into other ICT portfolios has the potential risk of cost shifting between portfolios, which may decimate competition. Digicel has become a monopoly and has greater control over interconnection rates and infrastructure. Number portability aspects need to be formulated into the numbering plan by NICTA. Unless these issues are solved, predatory prices may be experienced by citizens.

To better safeguard against potential market abuse, the regulator needs to upskill itself through training and inhouse research to improve understanding and action issues. Lessons from foreign jurisdictions with research on regulation specific to PNG's specific regulatory needs and capacities should be a priority. Coupled with specific training and research, better understanding of issues will result in more competent interventions, which in turn will promote ICT led development.

Author Notes

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