

## ISIFINYEZO ESIBALULEKILE NESINIKEZA UMMONGO WOCWANINGO

Ucwaningo lwenziwa ngenxa yokubona inkinga egxilile neqhubekela phambili kanye nezinsesele ezibangelwa ukuzixhumela ama-connection kagesi (i-elektrisithi) maqondana nezinkampani zikagesi. Ucwaningo belufuna ukufaka esivivaneni kudaba lokuvimbela ukuzixhumela kogesi ngendlela engekho emthethweni eKwaZulu-Natali, eNingizimu Afrika, yona okungakaze kwenziwe ucwaningo ngayo ngale ndlela. Kunengeniso eliningi lemali entshontshwa ngale ndlela kwizinkampani noma izinhlangano zikagesi ngoba kunokuzixhomela ugesi okungekho emthethweni, ukungasetshenziswa kwamamitha ogesi, kanye nokuphazamisa ama-network kagesi. Lokhu kubangela izingozi nokungavikeleki kubantu bonke, ukulimala, ukulinyazwa nokonakala kwempahla noma iprophathi kanye nokuthi ama-network kagesi agxisheleke nokucindezeleka ngokweqile. Kanti futhi lokhu kubanga ukuthi ama-transformer kanye nama-network kagesi acindezeleke ngokweqile nokwenza ukuthi isaplayi kagesi ihluleke nokufeyila, lokhu okubangela ukuthi kube nama-power cuts noma ukucishwa kukagesi okungahleliwe, ukulahleka kwemisebenzi, ingozi yokuphazamiseka kokuvikeleka kokudla, ukuthi ukuthuthuka komnotho kuphazamiseke kakhulu, ukulahleka kwengeniso lemali, ukuphazamiseka kokuphakelwa kukagesi, ukulinyazwa kwabantu ngokubanjwa ugesi, kanye nokusha kwemizi eshiswa ugesi. Lokhu kuholela ekutheni kuphazamiseke isaplayi kagesi kumakhastama akhokha kahle nenza izinto ngokulandela umthetho, lokhu okubanga imiphumela yezinhlekelele ezimbi. Ngakho-ke kuba nzima ukubhekana kanye nezinto zesaplayi kanye nokudingeka kukagesi ngaphansi kwalezi simo, ikakhulukazi lapho iNingizimu Afrika ibhekene nokuncipha noma izinga eliphansi lesaplayi kagesi.

Kule *dissertation* isimo sikazwelonke kanye nesamazwe omhlaba, siveze inhlobo kanye nezinga lokuxhunyelwa kukagesi okungekho emthethweni. Kubuye kwabheka nokuthi ukuxhunyelwa kukagesi okungekho emthethweni kubhekwana kanye nokuvinjelwa kanjani, nokuthi yiziphi izindlela eziqondene ezisetshenziswayo zokuvikeleka ezingasetshenziswa ukuthuthukisa izinqubo zokuvimbela ukuxhunyelwa kukagesi nama-connection angekho emthethweni angavinjelwa kanjani .

Kusetshenziswe idizayini ye-case study ukuphenyisisa ngokujulile imininingwane, imibono, izinqubo zokubheka isimo kanye nezipiliyoni zalabo obekuqondiswe kubo ama-

interview ngesikhathi kwenziwa ama-interview, ukuyobheka ngamehlo esimo ezindaweni, kanye nokuhlaziya amadokhethi amacala ngokwenzekayo. Le dizayini yiyona eholele ekusetshenzisweni kwamasampuli amaqembu athize, izinqubo noma amaprosija athize kanye namathekniki athize asetshenzisiwe ekuqoqeni kwe-data kanye nohlaziyo lwayo. Idizayini nokwenziwa kwama-instrumenti okuqoqwa kwe-data ehlukene, kanye nokwenza ama-instrumenti okulinga noma e-piloting, kusetshenzisiwe ukuqinisekisa i-validity, ukuthembeka (reliability), ukuqondana ncamashi kwama-instrumenti (accuracy) kanye nokuqiniseka okubizwa ngokuthi yi-trustworthiness yolwazi noma i-infomeshini eqoqiwe.

Ucwaningo, lukhiphe imiphumela yokusiza izinkampani noma izinhlangano zikagesi ekuphatheni kangcono le nkinga noma ifenominoni (phenomenon) yenkinga. Kwenziwe izincomo zokusiza ababambe iqhaza (stakeholders) ukuthuthukisa indima yabo ekulwiseni ukuxhunyelwa kanye nama-connection kagesi angekho emthethweni.