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<del>ગ્ર્હુન'ર્ને</del>ના

\* શ'ઢ કે નર્ગેન્પ' વદેવ સ્નુન- ગર્કે વદેવા સુભ'ર્પેન્શ'શ પરદભ' છુવ ર્સેનશા ક્રેશ સુના

শ্যুর'নর্র্র']\*

ૡૹૣਗ਼ૻઐૻૻૹૻૹ૱૽ૼૢ૾ૢ૾ૼઽૻઌ૽ૼૼૹૻૻૻૼ૱ૻૻ૱૱ૻૻ૱૱ૻૡ૾૽૱ૹૡૻ૾ૼૼ૱ૻૻૹ૽૾૾ૻૹૼૡૻૹ૽૿ૻૻૹૡૻૹ૾૽ૺૻૻ ૾૾ૼૡૼ૿ૡ૾૾ૺઌૻૻઌ૾૾૾૾ઌ૿

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**ગર્રેંટેંગ** શાક્ષરાત્રઅત્રાવ્રઅડ્વઆ કુનાત્મલના બના ક્વઆ શાક્ષે છે. ક્વેઅઓ ખેંગ્રેટના સર્હેન નવિશ્વા

૨ંગ્વર્ધેના

ૡ૽ૼ૱ઽૢઽ૽ૡ૽ૼઽૡૡૺઌૡૹૹૣૡ૽૿૽ૼૢૼૼૡૡૢઌ૽ૢૼૼૼૼૼૻઙ૽ૺ૱૽૾૱ઌ૽૿ૡૹ૾ૼૢૼ૱ૹ૱ૡૢૻૹ૾ૼઽૡ૽ૺ૱૱ ૹૡૢૢૢૢૢૢૢૡ૾ૻઌૡ૾ૡૢ

त्र्या गी राषात्र ही देवे राषा राष्ट्र राषे राषा राष्ट्र राष्ट्र राषे राषा

त्रसुग'गी'र्थाययः ह्नेत्रः में श्व'त्यत्रः प्रयाः उदया न्यसुत्रः दिन।

ૡઽ૾ૺ૾૾૾૾ૡ૱ૹૻૹ૾ૺૹ૽ૢ૾ૺૺૺૺૺ૾૾ૺૼૹૻ*૾ૺઌૺઌૡૺૺૺૺૺ૱ઌ૱*ૡ૿ૺૹ૾ૺ૾ૺૼ૾૾ૡ૱ૹૻઌૺ૱૱ૡ૽ૼૡૼ૱૱ૡ૽ૼ૱ ૱ૡૹૹૣ૾ૺઽૻૹ૾ૣૼઽૡૡૼૡ૾ૺૼૼૡ૾ૺ૱ૡૼૼૡૢૻૹૻ૾૱ૡ૽ૺૼૹૢ૾ૢૢ૽ૺૺૼૢૹૣ૾ૡ૽ૡૡઽૡૢૡૣૺ૾૾૾ૺૡૡૡ૾ૺૡ૾ૺૡ ઌ૾ૢૢૺૹૻૹ૾ૺૹ૾૱ૡૢૼૼૡૢૡઌૡૺ૱ૹ૾ૺૡ૱૾ૺૡ૱૾ૺૡ૱ૡ૾ૺૡૡૡ

र्वे नव्द र्थेन्य छोत्रा

রনমাঝিদ্যান্টনাজিরা

รัส 2 สาวาราชา

ઌર્વે ન્વવર શૈ મર્ને વા વાદના કેર્દન હિયા શૈ છે વ સુના ગાયસન્યો છે વ સુના ને વ્યયા મને ક્રીન શૈ છે વ સુના છે વ રહેવાયા વે ને વીયા યા વાલે ને એ એ નર્ફ વી એ છે વન્નર સાયના નુ ને વે વ્યયા મને ક્રીન કે વ રે આ જેવા છો વ " ગ્રેન્સ વાસુન અ વવન સુવા

त्रसुग'गी'र्थाययः ह्नेत्रः में श्व'त्यत्रः प्रयाः उदया न्यसुत्रः दिन।

ને'ત્વનન્દ્વાપ્યશ્વ શ્વરાક્ષેશ્વશ્વ અજગ્જ અનુસાનના અત્રે મઅત્ર ક્ષેશ્વ સાક્ષ અપ્ર મ્વચ્વ છે. ત્રે' 200૨ અનુ આ ને'પ્યશ્વ ન્દ્ર સુત્ર ક્ષિયાન્ અન્દ્ર શ્વરાક્ષ અક્ષ આક્ષ આદ્વ છે. માન્ટ ક્ષેત્ર ક્ષેશ્વ વાલુન્ટ વી સુવાનવવા આદ્વ આ બાવા ક્ષ વાલવા પ્યત્ર જીવા ખેતન્સ આ અદ્વ કે વા આવત વા સેવા પ્લે ક્વા પ્રવત્ત ને 'ખેતુ ખત્વે' ખેવા અર્ત્તુ ન જીવા બાવન ખેતના ખેતના જોવા આ જો જો જો જો જો જો જો જો જ

वे छोग

त्रज्ञुणाणे शाहाका ह्वेत्र में शात्रकार वक्षा चक्रुत्त वित्र।

## สุจารสัญารจราม

<u></u>ેલે સંગ્લુસાયે ત્યાય સંગ્લે જે તે સુધાર સંસ્થાય છે. તે સંસ્થાય સંસ્થાય સંસ્થાય સંસ્થાય સંસ્થાય સંસ્થાય સંસ્થાય સંસ ૻૹૢૡૹૻૡૢૼૼ૱ૡૢૼૼૹૡૢ૾ૼઽ૱ઌ૽૽૽ૢ૽ૺ૾ઽૢૢ૽ૺ૾ઽૢૢૢૢૢૢૢઽૢૻઽ૾ઌ૽ૼૼૺઽઌૹૻૻ૱ૡ૽૾ૡૻૡ૱ૹૻૻઌૡૼ૱૱ૹૻૻૡ૱૾ૡ૽ૻ૱ ন্টৰ'ন্দ্ৰন'ষ্ঠা

ૡ૽ૡ૱૱૱૱ૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૡ૱૱૱૱૱૱૱૱૱૱૱૱ 

ୢୄୄୡ୳୶୲୳ୖଈୄୖୢୄୡୖଽ୲୳ୢୖଽ୶୲୴୶୲୶୳୵୳ୖ୴୲ୖୢଽ୲୳ୖୢଽ୶୲୴୶ୖ୳୕୳୴୵୲୩ୖୄ୶୵୲ଌ୳ୖୄୢୗ୲୴୶ୖଌ୕୳୲ଌ୳୶୲ ૡૢૻ૽ૡૼૼૻૡઽૹૻૻઽૡ૽ઽ૽ૺઽૻૻ૱૱ઽૹૢૻઽઌ૽ૻૡૼઽૺૼૻ૾ૻૡૡૹૻૹૣઽૼૻૻઌૹૣૻ૿ૡ૽ૡૻૡ૱ૻૡ૽૿૽૱ૻૡૢ૿ૡ૽૿ૡ૾૿ૡૡ૾૾૾૾ૡ นาวสิณาราณีรานวินพิศาธรรษิรายราวรรณ์ ราพราสเวิทสิมสาพิศาวคงค อสามา 551 พลิ:จอล:สิมพ:2000 อส.พ) มิ:วุจร.พรล:สุจพ:2):จากส. สุจา:วุร.) จาสส. ન્હનાયન નું આવે અ.ર્સેન. અર્સે. આવે પ્રત્યને આ પ્રત્ય માં આ પ્રયત્સ સ્વયા સ્વયા સ્વયા સ્વયા સ્વયા સ્વયા સ્વયા સ ૡ૾૽ૼૼૼૢઽૻૻૻઽૻઽઽૻઽૻૻૻઌૻૻૡૺૡૼૡૻૻ૾૾ૡૻૡ૾ૻૡૻૻ૱ૻૹૣૻૢૼૡૼૻઽૡૼૢ૾ૼૹ૽૿ૻૡૼૻ૱ઌૡ૽ૻૡ૽૿ૡૻૻ૱૱૱૱ ૡ૽૿ૹ:ૡ૾ૢૼ૽ૻૹૻૻઽૻૹઽૻૻૹૻ૾ૣૢૢૢૢૢૢૻઌ૽ૺૡૺૻૡઌઽૺૻૢૺૺ૾ૺૺ૽ૡૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૻૻૡૢૻઽૹૻ૾૽ૼૹ૽ૼૻ૾ૹૹૻૻૹૻ૾ૹૻ૾ૻૹૹૻૻૹ૾૾ૡ૾૾ૹૻ૾૾૾ૡ૽૾ૡ

નેતે મળાવ દેશ નગાવ ર્સે મળુ નન રુવ સ્રુવ મનગાર્સ્તુ ગોશ સુચાય વસુવા માસુ સ્રે આ સ્રે હવા સુગા ને વ્યનવા બાજી જેવા ગોશ નગત લુ ગતે નગત હેવા સે ચેન છા વા સુ જેવા ગોશ નવે શ આવે છે ગતે આ સુવ તે તે નગત સ્તા સ્તા છે છે તે કે આ સે ગામ ગામ સ્તા ગામ સ્તા ગામ નગ

য়ঀ৾৾ঀ৾৾ঀ৾৾ঀ৾ঀ৾য়৽ঽৼয়৾ঀ৾ঀয়ৢয়৽ঽয়য়৽৾ঀৼ৾য়৾য়৽য়ঀঀ

দ্ববাশী আহামাইন ঐগবেমন হামা ডব্বমা দন্ধুন বিদা

સ્ ર્શુ ખેં ગડા બેં સુ નર્કે ગવર હુગ

થીૹ<sup>.</sup> શ્રે 'શેમ્ડ'બશ્વાં ભાગવશું વે 'ર્નેવ'ભુ'વર્સ્વે 'શ્રશ્વ'ને'બથા'બેવ'વ્યથન સુથી લયા'નયમ્પ્લયા અત્રયાવને નુશ્વ'મ્પત્રથા મહુ'મનુવ'મ'બશ્વ'વર્થે 'મહુંથોથાય છે'નુશ્વ'મ્પત્રથા છે'.ભુ'મ' શે'નુષમ વસુથી સુભ'થી સુયાયવે હત્વ 'શ્વેને' થીવશા ભુકો છેને 'સ્હુંવ'બથી' બેવ 'વ્યથન 'શ્વેને' સુથી

त्रज्ञुग गी राषात्र होतः देवरा न यात्र प्रया उदया न सुन दिन।

ૢ૾ૺઽ<sup>੶</sup>ઌૹ੶ਜ਼ૢ૱੶ૡઌૹ੶ઙૢઽ<sup>੶</sup>ઽ૾ૺૼૼ૱ઽ૽ૼ૾ૼ૱ૼૡ૽ૼઽૹ੶ઽૻૐૹ੶ૹ૽ૢ૿૾ઽૺ૽ૢ૿ઽૹૻૻૹૢૻૡૺઌૹૻૻઌ૽ૼ૾૾ૡ૾ૼૼૼૼૼૼૹૻૻ૱ૼૡૼૼૼૼૼૼ૱ૹૻ ઽૹ੶ૡૢ੶ૻૡૢૡૹૻૡ૽ૡ૱ૻઌૹૺૢ૽ૻૻૻૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૡઌૹૻૡૢઽ૾ૹૢૢૢૢૢૢૻૢૢૢૢૢૻઽઽૼૹૻૻઌૡૢૡૹૻૻ૾ૼૻ૽૱૱ૻ૱૱૱૾ૺૹ૽ૻ૱ૻ ૡૢૼૼૡૹૡૢઌૠ૽૿૽ૺૢૺઙ૾૾ૹૻૻૻ૱ૡૼૼૼૼૼૼૹૻૻૡૹૢૢૢૢૢ૾ૻૡૹૢૡૻઌૡ૿ૺૼૼૼૼૼૼૼૡ૽ૼૹ૽ૢ૾ૢૼૼૼૼૼૼૼૼૼૻૡ૽ૼૡ૽ૼૼૡૼૼૼૼૼૡૻ૽ૼૼૡૼ શ્વેમ્ટર્સું અશ્વ બેંગ્સ્ટ્ર્ર્સ્સ્ શું દાવવા સું ગ્લ્સ્ટ્ર્યું વે વર્ષે ગ્લ્સ્ટ્ર્યું નાય સુધાય છે જેનું ગાલિ ને ' ૡઽૹ૾ૺૹ૾ઽઽઽૹ૾ૼ૾ૻૹ૾૽ૹઙ૾ૢૢૼૢૼઽઌ૽ઽ૾ૹૻૻૹ૽ૡ૿ૡૢૻૹૡ૿૱ૡૡૻૹૢ૽૱ૹૣૻઌ૾૱ૡ૱ઙ૾ૣૼૼઽૡૢૹૣ

মর্র মার্ম রুমা

૱૾ૺૡૻ૱ૼૢૼૹ૽૾ૣૼૹૺૡૼૻઌૹૢઽૻઌૡૢૼઽૻૡૢૻઌૢઌૻઽૢઌૼૼૻઌ૽૾ૼૻૹૣઌૻઌૹૻૻ૽૽ૼૢૢ૱ૹૻૹ૾૽ઌૻૻૢૻૻૼ૱ૻ૱૽૿ૻ૽ૼ૽ૻૻ ૡૡઽૹૡૢૻ૾ૹૢ૾ૡૢઌૻૻૹૻૡૢૻઽઽઽઌ૽૿ૺૹૻૻ૱ઽ૾ૺ૱ઽઌૻૻ૱ઽ૱ઽૡ૾ૺૼૹ૽ૺૡૹૻૹૺૹૹૻૻૹ૱ઽૡૼૹૡ૾ૢૼૼૼૼૼૼૼૼૼૡ યશ ્ભૃષ્યપ્રશ્વાસ્તરાત્વનરાશ્વાસ્ત્રાસ્તરા શું ર્ક્ષરાયું પૈંગ્રુન સું લુવા સે શાસ્ત્ર સુંત્ર વા સાંસ્તરા સંસ્ <sup>৻</sup>୳'ૡૢ'ઙ૾૾୩'ૡઽ૾ૻૢૼૼૻૼ૱'ૡૹ૾૾ૣ૽ૹૢૻૹૡૻૻૻ૱ૡૻ૽૽ૼૻ૱ૡૡૻૻૻૢ૽ૼ૱ૡ૽ૢ૿૱ૡ૽ૢ૿૱ૡૻ૱૱૱૱૱૱૱૱ <u> ५</u>८ नाहत्व न मुन्द्र के र भुः महत्व प्रदेश के भुः स्वर्थ के स યમઃગલુમઃવ્યથાશ્વાયં મારે શ્રુ ર્ક્રમ્સ્ટ માલુ શાક્ષા સામનો વ્યુપ્ત સ્વયુપ્ત સામને સામને સામને સામને સામને સામને ૹુૹૢૹૻૡ૽૽ૡૢૻઽૻૹ૽ૣૡૢૡૻૻ૱૱ૹૢ૾ૡૻઌૻૡ૽ૻૡ૽ૻૡ૽ૻૡૻૺ*ૡૻૢઽૼઽઽ૱૾૽ૡ૽૾ૡ૾૾ૡ૽ૡ૽ૡૡૡ*ૻ૱૱૱૱૱ 

ধ্রন্দার্বা

ઐૹઃ૱ૹ૾ૣૢ૾ૺૼૢૻૢૢૢૡ૱ૹૢ૽ૺૹૣૻ૱૾ૼઽૡૢઙ૽ૼૼૼૼૼૼ૱ૢૼ૱ૹૣ૽ૺ૱ૢૢૢૢૢૢૢૢૡૹૡૹૡૡૡ૱ૡ૽ૼ૱ૡ૽ૼ૱૾૽ૼ૱૱ 

## ૹ૾ૺ૾ૹ૽ૻૻઽઌૹઌ૽ૼૻૻૼૹૹૢઽૻૻૹૡૻૻૻઌૡૻૺૹૢૻૣઌૹૻૻ૽ઌૢૻૹૢઌૹૻૻઌૼ૽૾ૢૺૼૼૼૼૼૼૼૼૼૼઌૡૢૻૻઌૹૢૻૹૢ૽૾ૺ૾૾૾૾૾૾૾૾૾ૺૹૻ૱ૡ૾ૢૼૼૡ૽૿૽૾ૹ พ สู ดิวา พี่ๆ จิวา สูวรัฐา สูเพิ่ง พพ วิวาฐานที่เลม เวา สวาง สถามิวา ۥٮ؇؞ٮؽٚٮٛۼٛٵۥٵۥٛڔؙڮٵۥ؞ۮڲٝۺۿڋڋڂ۪ؿڂۣڗڡ؆؇؞ٮڛٛٵۼٛٵؚ؞؆ؠٛڔۦڂۥؾۿ؆ڝۼۛڋۄٵ۪ ભાષા ર્સ્ટુર સે સ્ટ્રીંગ વિશાસથા મુદ્દ ર રાયેલા આ છે. અને સ્ટ્રીય સાથ સે સાથ સે સાથ સાથ સાથ સાથ સાથ સાથ સાથ સાથ ૡૢૣૹૣૹૻૡૢૼૼ૾૾ૼૺ૱ૻૻૻૻૻૻૻૡ૽૿ૡ૽ૺૡૻ૽ૡૢૢૢૢૢૢૢૢૢૻૻૡૢૹૣૻ૾૽ૡૻ૽ૡૻૻૡૼૡૻ૾ૡ૽ૻૡૻઌૻૡૢૼૹ૽૿ૡૻૻૡૼૢૻૹ૽૿ૹૻૻૡૢૼૼૹ૽૿ૹૻૻૡૼૼૹ૽૿ૹૻ *ૻ*ૡૡૢઽૡૢૻ૽ૡઌઽૢૢૢૢૢૢૢૢૡૻૹ૾૾૾૾ૼઽૡઽૠૢૺઌૡૢ૾ૼૼૼૼૡૹૻૹ૽૾૾ૻઽઽૠૡ૾ૢૼૼૼૡૹૻૹૺ૱ૢૻૹૢઌૹૻૹૻઌઽૺૡૻઌ૽ૺૡૺૼઙ૽૾ૡ <u></u> बर मने मक्ते येति र्थे चर दर सुभाषर र्वे र ने की भाषि भक्ष सुकार महि मर्डु का साम र सुका

त्रज्ञुणाणे शाहाका ह्वेत्र में शात्रकार वक्षा चक्रुत्त वित्र।

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শাৰ্ব-'ৰ্য্মা

ૹઽૹ*ૡ*૽ૢ૽ૺઌ૱ૡૢૡૹૡૢૼૼૡૹૢૢૢ૱ૡ૽ૺૺૼૼૡૹઽૼૼૼૢઽૺ૱૽ૺૹ૽૱ૡૢૡૹૡૡૹ૱ૡ૽૿ૹ૾ૢૢ૽ૢ૾ૢૢૢૢૢૢૢૢૢૢૡૼ૱ૡ૽ૺ યલે લેચચ અગ્રફ્ર 174 7 મ્યાગ અપ છત શે અગવિ વર્દ્ય સુંદિ ખ્યાગ સુગયાં દર્ત્વ સ્વેના ୶ଵୖ୲୶ୠୢଽ୕୶୶୕୵ଽ୶ୢୠ୕୶୶୰୰୵ୠ୶ୄୠ୶୲ୄୢୖୢୄୖୢୄୖୢୄ୰ୖୖ୷୕୵ଡ଼ଡ଼୰ୖୖୖ୕୶୕ୄୠୖୢୢ୷୕ୖଽଽ୶୲୶୵ୖୣ୵ୖ୳ୡୄୖୢଽୠ୷ ર્વેન્ડજાજી સુવર્ત્વર છુવા અર્દેવા વસુવા વસુર વર્દ્ધવર્ત્ડ પાલે વાયેર છે. વર્ષ્ય વેવયા લેવયા ભષ્ણ ગલિટ.રેટ.જી.જી.ર.વ્રી.સથે.સપુરાય આપેલું.સદ્વરા સુપ્રેટ.ચુ.ત.ચુ.તજી. આપેલી સાથે.સ્ટી.સ.સ.સ.ચલુવ.કીટ. ৰ্শা મલે એ ગ્રે ન ગાણે માં છે સું દેવ ન ગામ ગાણ માં ગાણ તે તે આ ગાણ તે ગાણ તે ગાણ તે ગાણ તે માં ગાણ તે ગાણે ગાણ તે ગાણ તે ગાણ તે ગાણ તે ગાણ તે ગાણ તે ગાણ ૹૻૻ૾૾<del>૾</del>ૼૼૼૢૻૼૹૻૻૻ૽ૼૼૡૢૻૺૡૼૡ૽ૢૺૼૹૻૣ૽ૢૺૼૼૢૼૼૺ૾૽૽ૢૺૼૻૡઽ૽૾૾ૡૻ૽ૡ૽ૢૻૡૻ૱ૻૢૻ૾ૡૻૻૡ૱ૻૻૡૡૢૻ૱ૻઌૡ૽ૺૻ ઙૡઙ૽૾ૼૺૼૼૼૼૺૼૻઌ૿ૡ૾૾૱ૻઌ૾૾ૹૻૻ૾ૡ૽૿ૡ૾ૻૡ૽ૻૡ૽૿ૡ૽ૻૡ૽૿ૡ૽ૻૡ૽૿ૡ૽ૻૡ૽૿ૡ૽ૻૡ૽૿ૡ૽ૻૡ૽૿ૡ૽ૻૡ૽૿ૡ૽ૻૡ૽ૼૡૻ૾ૡૻ૾ૡૻ૾ૡૻ૾ૡૻ૾ૡૻ૽ૡૻ૾૾ૼૡૻૻૡૻ૾ૡૻ ૹૣૣૹૢૻૻૡઽૻઽૢૻૣૠ૾૿ઽૢૻઌઽૻ૾૾૾ૢૼૼૼૼૼૹૻૻ૾ૢૢૼઌૻઽૼૺ૱૽ઙૢૢ૽ૼૼૹ૽ૼૹૻઌ૱ૣૢૹૻૹ૽૿ૻૹૻૹૼૡ૽૽ૼૡૼ૱૱ૻ૽ૼ૱ૻૻ૱ૻ ৰ্শা ૹਗ਼ਸ਼ਸ਼੶ਫ਼ੑੑੑੑੑੑੑੑੑੑੑੑਸ਼੶ਸ਼ਲ਼ੑਗ਼ਸ਼ਸ਼੶ਖ਼ੑੑੑੑੑਸ਼੶ਖ਼ੑੑੑਸ਼੶ਖ਼ੑੑਖ਼੶ਸ਼ਫ਼ਖ਼੶ਖ਼੶ਖ਼੶ਖ਼ੑਖ਼੶ਸ਼ਸ਼ੑ੶ਖ਼ੑੑਖ਼੶ਖ਼੶ਖ਼ੑਖ਼੶ਖ਼

ঝর্ছন'শার্ব-'রুশা

त्रज्ञुना मी 'राज्ञरा ह्वेर भें राज्य राज्य उदया प्रसुद दिय।

ઽૺૢઽઽૻૹૢઙ૾૾ૹૻૻૡ૱ઙૢૺૼ૱ૡૡૢ૱ૹ૾ૢૺૼૼૼૼૼૹૣૹૻઌ૽૿ૢૹ૾ૺઽ૱ૼૡૼૹૺૹૻ૱ૼૡૢૢૹૻઌૼૡૼૡ૱૾ૻૹૻૻૹ૱ૡ૽ૻૹ ૱ૡૺઽૹૻૡઽ૾૾ૺૢૼૼઽઽૻૡ૽ૼૡ૿ઌ૾ૺૢૻૡૡૢૼઽૡૢૻૡૡૡૡૡૡૡૡ૾ૺ૱૱ૡૢ૾ૼૡૻૹૻ૾૱ૡૡ૾ૺ૱ૻૡૡ૾ૺૺૻ

बर नलग के रे ने का सु न के जावर कु गा

त्र्या गी राषा द्वरा क्रेन र्जे रा न या मा उदया न क्रुन र विन

ૡૢૼૼૼ૾૽ૼૼૡ૾૾ૹૻૡ૽ૺઽઌૹૻૻ૽૾ઌ૾૾ૡૻ૽૾૾ૡૻૹૻ૽૱ૻૹ૾ૣઌૻૡૼ૱ૡ૾ૢઌૣ

त्र्युणग्णे श्वाद्यभङ्गेरः र्जेश्व र अन्य व्या उदया न्युप्तः दीन।

ઽૺૡ૿ૺૡૢ૾ૺઽૻઌૹૻૻ૱ૹૢૻૡૻૹ૽૿ૻઽૣઌઽૻૡ૱ૢૢૣ૽ૣઌૻૹૢ૿ૡૻઌૡ૿ૺૡૻૻૹ૾૱ૼૼૼૼૼૼૼૼૼૼૼૡૻૹૺ૱ૻૹ૽૿ૺૻઌઽૻૡૺઌૹૻૡ૿ૺૡૹ ૡૹૣૢૢૣૢૹૻ૱ૡૺૡૻૻૺ૱ૻૡૡૺૡૻૡૺૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡ ૱ૡૺૡૹૻૡ૱૾ૺૡૺૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡ ૱૾ૺૹૻૹૡ૱૱૱૱૱૱૱૱ૡૡૼ૱ૻૡૡૼ૱ૻૣ૽ૡૡૡૡૡૡૡૡૡૡૡ ૱૾ૺૹૻૡ૱૱૱૱ૡૡૡ૱ૻૡૡૼ૱ૻૡૡૼ૱ૻૡૡ૱ૹૢ૽ૺૡ૾ૻ૱ૡૡૡ૱૱ૡૢ૾ૺૼૡૡૡ ૱૾ૺૹૻૡ૱૱૱૱ૡૺૡૡ૱ૡૡૼ૱ૻૡૡૼ૱ૻૡૡૼ૱ૻૡૡૼ૱ૻૡૡ૱૱

तज्ञुना मी भावा हैर में भारतार वया उदया नसुर दिन।

ૹૻૡૹૻૡૢૼૼૢૼૹૻઽઽૹૻૻઽઙૢ૱ૢૼૼૼ૱ૻઌૹૻૻ૾ૼૼૼૡૻૢૼૡૼૼૼ૱ૼઌૢ૾ૢૻઌૻૻઌ૱૽ઌઽૻ૱ૢૼૹૻઌ૽૿ૢ૽ૻૼ૱ૡૹૻઙૢઽૹૻઽૢઽ૽ૻ ็จพูระดิจามร์ราทุสราสูท จริเรราหุสาขาลมายิ่งจริเจที่รารรา พาลมารู้รายรพา ઼ઌ૱ૡૢਗ਼૱ૡૢૼૼૡઽઽઽૡ૽ૼ૱ૹૡ૽ૼઽઽઽ૱ૢૢ૱ઽ૱૽૱ૡ૽ૡ૱૱ૡૢૼૼૼ૱૱<u>ૼ</u>ૡૼ૱૱

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้ รู่พารจพาจจูาจรูสารเจ้าสราฐมาต่อพารูรารอารุจราฐมาฐณามธิ์อา เหลือๆ สูญาเกอา ૡઌૹૻઌૢૢૡૼૹૢૻૢૻ૽ૼ૱૱ૢ૾ૢૢૢૣૢૡૻૹૻૻ૱ૢૻઌૻૻૻઌૣૡૼૻઌ૽ૼૡ૽ૻઌ૽૿ૡૻઌ૽ૼઌ૽ૻૡ૽ૻ૱ૡૢૻૡૻૻઌ૽૿ૡ૽ૻ૱ૡૣૻૹૻ

ૻ<sup>ૻ</sup>ઞદ્દેવ અંતે દ્દેવ ગાલે ગાર્કે મેં છે ગા ભોષા દ્દેવ ગાલે આ ગાલે એન્ અન્ય એ આ ગામ છે. જે આ ગામ આ ગામ છે. જે આ ગામ આ <u> २</u>८ मार्वस्थ स्वरेष्ठ म्या स्वेन्य सिंहा व्यत्ते स्वयत्व स्वया स्वयत् स्वयत् स्वयत् स्वयत् स्वयत् स्वयत् स्वय 

মদ্র্যাসম্থা

ૹ૾ૣૢૼૼૢૼૠ૽ૺઌૺઌૡૼૼૼૼૼૼૼૼૡૼૺ૿૾ૹ૾૾ૡ૱ઌૹૺૣૢૢૢૢૢ૾૾ઌ૽ૼૼૹૻૻ૱ૡ૽ૼૼૼૼૼૼૼૼૼૼૼૼૼૼૼૼૼૡ૽૽ૼૡ૽૿ૹ૾ૻૡ૽ૻૡૻ૽ૡ૽ૻૡ૽ૻૡ૽ૻૡ૽ૻૡ૽ૻૡ૽ૻૡ૽ૻૡ૽ૻૡ ૿૽૱ૹૹૻ૽ઌ૽૿ૢ૽ૻઽૡ૽ૼૼઽૹૻઽૼૼૼૼૼૼૡૻૻૡ૽૿ૼૺૼૹૻૻૻ૱ૻૺૹ૾૾ૡૼૹૢૻઽૻૻઽઽૻૡૢૻૡૼૻૻ૱ૢૼૡૼ૽૾ૼઌ૽૿૽ૺૻ૾ૼૡૼૡૢૻૻઽૺૡ૽ૢૺૼ<sup>ૻ</sup>ૡ૽ૼૼૻૡ૽ૻ૾ૼૺ૱ૡ 

५र्वेभःदुरः तुगा

<u>૾</u>ૢઽૻઽૺૹૻૡઽૹૻૻઌૻૻૹૻૻૹ૽ૻૡ૽૿ૡ૽૽ૼ૾ૺઙૢૻૺૹૻૻઌ૽૽૱ૹૻૣૹૻૣ૽૱ૹૣ૽ૼૼૼઽઌ૽ૢ૿૽ૺૼૼૼૼૼ૱ૼૡૢૻૠૢૼઽૹૻ૾ઙ૾૾ૼૼૼૼૼૼૡૻ૱ૻૹ૾૾ૡૻૻૻ૱ ৰ্শা য়ঀ৾৾ঀ৲ৼ৾৾ঀ৾৽য়ৢ৾৾৾৾৾য়৾৾ঀয়৽য়ৣ৾৽৾ঀ৾৽৻য়ৢ৾য়ৣ৾ঀ৾৾৽ঀ৾ঀ৾৽ঀ৾য়৾৽য়৾৾য়ৢয়৾ঀয়৽ঢ়৾৽ড়৾ঀ৸৾৾৾ঀ৾৽য়৾ঀ৾৾য়৾ঀ৾৽য়৾য়ৢ৾ঀ৾৽৾য়৾ঀ યલે ગતા ના મારા સાથયા તે છે. આ આ આ આ ગામ મારા સાથયા તે છે. આ ગામ મારા સ

तज्ञूग'गै'श'द्वश्व ह्वेद र्जेश'दश्वर वश ठह्य न्यू द लेग

୲ୖଌ୶୶୲ୖ୴୶୲୵୵୵୕୶ଡ଼୵ୖ୲ଌ୶୶ୄୢୄୠ୕୵ୠୄ୷୵ୖଡ଼୕ୖୖ୶୲୴୶ଽୖଌ୵୶୲ୖ୶୵ଡ଼ୖୖୖୖଡ଼୶୲୷ଽ୵ୣୖଽ୶୲ প্লুব্য. યર:૬'ર્કેશ: મુખ્ય સે'નગર ગાશ્ય માં લેર ગાને ગાય પરદેવાય સેન કેં દે નગર છુવા લગય ગીયા ૡવઽ૱ૹ૾ૼૼૼૼૼૼૼૼૼૼૼૡૻૻૢૡૼૡઙઽૻ૾ૺૼ૱૽ૺૡ૽ૺ૱૱૱૱૱૱૱૱૱૱૱૱૱૱૱૱૱૱૱૱૱૱૱૱૱૱ શ્વેમ ના માર્ગ પ્રયુપ્ય પ્રયુપ્ય ના મુખ્ય છે. આ પ્રયુપ્ય પ્રયુપ્ય ના પ્યુપ્ય ના પ્રયુપ્ય ના પ્યુપ્ય ના પ્રયુપ્ય ના પ્રયુપ્ય ના પ્રયુપ્ય ના પ્રયુપ્ય ના પ્રયુપ્ય ના પ્યુપ્ય ના પ્યુપ્ય ના પ્યુપ્ય ના પ્રયુપ ૡૢૼૼૹૄૢૢૢૡૻૡ૱ૡઽૹૢૢૢૡૻઌ૽ૢ૿ૹૣૡૹૹૢઽૹઽઽઽૹૹૢૡઽૢૹૹૹૢૡ૱૽૽ૼૹ૱ૹૡૢ૾ૹ૽ૢઌૻૡ૾ૼઽૹૹ૱૱ ૡઌૹૻૻ૽ૢ૾ૼૼૺૼઌૻૻૡ૾ૢૼૢૻૼૹૻૹ૽ૼૼૼૼૼૼૼૼઌૻૡૹૻૻ૽૽ૼઌ૽ૼૼૹૼઌૻૡૼૼઌૹઌૻઌ૽૽૱ૼૹ૽ૣૡૻૼઌૼ૱ૻૹ૾ૺૻૡૼ૱ૻૹ૾ૺ *ૼ*૾૾૱૱ૼ૱૱૱૱૱૱૱૱૱૱૱૱૱૱૱૱૱૱૱ ૡઌૹ*ૻ*૽ઌ૽૾ૢૹૻૡૹૡ૾ઌૻૹ૽૾ૺઽૻ૱૽ૢ૿ૹૢ૾ૢૢ૾ૺ૾ૢૹૣ૱ૹ૾ઌૻૹઌૹૻૻઌૻૻ૱ઌ૽ૻ૱ૡ૽ૡૻૹૡૻૹ૾૽ૡૡ૱ૡ૽૽ૼ૱ ૻૻઌૢૢૡૹૻૹૢઽૹૻૻ૾ઌૻૻ૱ૹૢૻૢૹૻૻઽૢઽૼૹ૾ૣૣૣઽૻઽૹ૽ૣૼઽૻૹ૽ૼૹઌૹૻૡ૽ૻૡૡ૽ૡૡ૽ૡ૽ૡ૽ૡૡ૽ૺ૱ૹૢૻઽૼૡ૽ૢૼૻઌ૱૿ઌઽૹ૽ૺ <sup>૾</sup>ૺૠૻૡૢૼૡૢૻઽૢૡ૽ૼૼૹૻૻૹૡ૽ૼૼ૾ૻૼૢઽૻઌૹૢૡૻૹૡ૽૿ૹ૽ૢૢ૽ૺૢૼૹૣઌૻૡૢૼૼૡૻૡઽૻૻઽૻઌૻૡ૾ૼૡૻઽૢૡ૽ૼૼૼૼૼૡૹ૽ૡૺ

লুম্ব:জিবা

त्रज्ञगांगी राज्य हिन्द्र में राज्य राज्य उदय जम्भून दिन।

ૡસુવાગે અલે મરુલ પ્યેવા મુંતર સ્રુવા ગાલે સ્રુપિં 2000રુવ થા (2004) કેઅ સુવા સુભ પેંદ્ર અ અ રહેવ ર્સેવાયા અ સ સુર ર્સેક્ મુરા સેવા ગુદ્દ સ્રુવ ગાલે સ્રુપે જે 2014 રુવ થા કેઅ સુવા સુભ પેંદ્ર અ અ સ શ્રુવ ર્સેવાયા

ન્યયાપ્ટ્રિકાયક્ષુયાયલે ક્ષેચચાયલુંદ્વા છેં જેવ નવાવગેનિ યલે લેદ યો ક્ષેચચાયાલુંદ દેવ એ ગિ પર્સુયાયો ક્ષેચચાયાલુંદા ચલે ક્ષેચચાયેથા વાવચાયા ચાયણા સેવચા ક્ષેપિ ૧૯૫૯ હવા આ (૧૯૯૮) ક્ષેચચાયકે દેવાયા સુદા વાયા બેચા દેવા દેવા સુવા ચાર વસ્તુવ કે છે.

ૡ૱ૣૣਗ਼੶ਗ਼ੑਫ਼ੑੑੑੑਲ਼੶ੵਖ਼ੑਗ਼੶ਗ਼ੑਖ਼੶ਖ਼ਖ਼ਖ਼ਖ਼੶ਫ਼ਖ਼ਖ਼ਖ਼ਗ਼ਖ਼ਫ਼ਗ਼੶ਗ਼ੑਫ਼ੑਲ਼ੵੑ੶ੵਖ਼ਸ਼੶ਖ਼ਗ਼ ਗ਼ੑੑੑਸ਼੶ਖ਼ੑੑੑੑੑਸ਼੶੶ਸ਼ੑਸ਼੶ਸ਼ੑਸ਼੶ਖ਼ੑੑੑਸ਼੶ਖ਼ੑੑਗ਼੶ਸ਼ੑਗ਼ੑੑਗ਼ੑੑ੶ਗ਼ੑਫ਼ਖ਼੶ਖ਼ੑਸ਼੶ਖ਼ਸ਼੶ਖ਼ਸ਼੶ਖ਼ ਗ਼ਗ਼੶ਖ਼ੑੑਸ਼੶ਫ਼ਖ਼ਸ਼੶ਫ਼ਫ਼ਸ਼੶ਫ਼ਗ਼੶ਖ਼ੑਗ਼੶ਖ਼ੑਗ਼ੑਸ਼ੑਖ਼ੑਸ਼੶ਸ਼ੑ

**શુન દેવ' ન્યે ર્થે** એ'નનન અન્ય ન્યુના 'સેવ યેં' ઢેવે 'નગાવ 'કચ અ ઢવે 'હ્વચ 'નગોન 'વે 'નન' નનન ઢવે 'સ્નેન કેચ 'હવા નગા બેચ દેચ 'ટ્રેન' અન્ય નનગ શુવ્ય યેવે ખેવા ર્સના

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तज्ञुना नी राज्य ही र र्जे राज्य प्रथा र धया र बुरा जम्भु र विन।

- दर-श्वै-नृःश्चदगण्यत्री (१९९९) ख्रियाओं गाम विद्यान्त्रेया श्रूमाख्रया विद्यास्रया। नगाः भीषा केंबा हेंम्ना
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**૱ૻૹૣૣૣઌૹ** ૱ૻૹૣૣૣઌૹૻૻ૾૾ૺૺૺ૾૾૾૾ૻ૽૽ૺ૾ૡ૱ૢઌૻઌ૽ૼૼૼૼૼૼૼૼૼઌૺૡૻૻઌૼૺ૱ૹૻૹૹૻૡ૱ૼૡ૾૾ૹૻૻૡ૱ૻૡ૱ૻૡૡૢૹૻ ઌૡઽૻઌૡ૽ૺૻઌ૱૽૾ૼૹૣ

त्रुग्गे गे भाव्य हुन्द्र में भाष्य प्राय क्य जिया मुमुद्द विया



## इरःध्रुगशः ८ म



איתוחיום:בילאינייניםיאליצינותיאישקינא

इर सुराश र य

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# গুমান্ধুমাঝা থ শা



# রুম:শ্রুমাশ্ব: ৫ মা

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इर:सुगयः ५ म

तज्ञ्या यी शासका द्वेर में शारकार प्रका उक्का यक्सर विया

<u> इ</u>र:स्रुग्स: < भा

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# इर:स्रुग्र ९ म

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# <u> इ</u>र:শ্বুশা<u>শ</u> ११ শ।

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# ৰু**ম**:শ্ৰুশাশ ?০ শা

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त्रज्ञुगांगीं शाहारा ह्रेन्द्र र्ज़िशा द्यादा प्रवया प्रमुद्ध होना

हर सुगरा १२ भ



<u> ৰুম: শ্ৰুমাৰ্ম: 23 শ</u>া



พาละณาฏิเติภาพพาธ์ภากภิพนา รฤษิส์พาพิราคาสะีญ



इर:सूर्याश्व<sup>,</sup> १७ म



গ্রুমার্য ৫৬ মা

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इर:सुग्राय: १८ या

तज्ञुग गो भाव्यक्रेर र्जे भार्यमा वया उदया यसुर विय

ર્શ્વેક્સ સુવષ્ય કવા વૈષ્ય વક્લ્ય સે વૃત્ય વૃત્તુ રહ્ય વૃ



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### Does GNH Determine Contextual QoL? A Case of Thimphu Urban<sup>\*</sup>

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### Abstract

The empirical assessment of happiness or life satisfaction is emerging as a key research area across the world. Studies in this area, however, are pursued mostly by determining generalized Quality of Life (OoL) and fails to reflect contextual and place-based QoL. This study aims to fill this gap by examining how placed-based attributes could determine OoL by taking the case of Thimphu, the capital city of Bhutan. Subsuming the attributes of Gross National Happiness (GNH) the study determines QoL of Thimphu for the first time. The study applies empirical OoL model and employs both qualitative and quantitative approach, and it also considers wide range of literature reviews. The findings reveal that both GNH and most OoL cases are multidimensional in approach and bears high correlation between the attributes. There is inherent commonness and similar patterns between the two. Converging the findings from recent GNH survey 2015 and this QoL assessment, the analysis demonstrated that there is correlation close to R2 = 0.91 and the line of best fit at y=01236x+1.7333. The significance of the findings confirm that the QoL mechanism would be efficient, effective and realistic if it is place-based and contextual in approach, but not undermining dynamism in change around. The findings of the

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QoL assessment also recommends set of significant propositions to address the dispossession of QoL. The policy review, program alignment and innovative infrastructural integration in education, psychology and community vitality domains of QoL are underscored as main recommendations from the study.

**Keywords:** Gross National Happiness, quality of life, indicators/attributes, satisfaction, domains/dimensions, place-based, subjective and objective wellbeing

### 1. Introduction

### 1.1. Background

Evaluating realistic QoL is an indispensable part of public decision making processes to generate purposive, timely and right policy interventions. However, the assessment of QoL is undeterminable in most cases. According to Brown et al. (2004) states there is no definite and widely accepted theory or empirical tools to determine QoL. It remains complex, nebulous and amorphous until it attains homeostasis state (Lawton, 1991). (Hagerty et al., 2001) reviewed 22 most commonly used QoL models around the world and found out that the use of tested conceptual model of QoL is lacking in most cases. As a result, there is high prevalence of inconsistencies in the application of QoL assessment and models around the world. However, what is commonly revealed is that the contextual place-based attributes are the most sensible and realistic to determine QoL.

It is significant to ascertain these findings by considering contextual place-based QoL mechanism in the study and assessing their relationship and resemblances. The study considers GNH as a place-based QoL mechanism in the context of Bhutan to test against QoL empirical model. The test uses common dataset of Thimphu urban, the capital city of Bhutan. While GNH is a development model that inherently determines QoL in Bhutan (Ura et al., 2012), it is an exemplary model with multidimensional approach like most existing QoL models used around the world. GNH consist of 9 domains, 33 indicators and more than 124 variables to determine the holistic progress of the country and its people.

Attributes such as material and emotional wellbeing, social and community vitality and heath and life satisfaction are wisely considered in constructing 15 QoL indicators in this study which inherently subsumes the 33 indicators of GNH.

### 1.2. The purpose of the study

The key purpose of the study is to find out the relationship between GNH and OoL assessments regardless of the different approaches and assessment models used, and also examine whether GNH determines contextual measure of OoL or not in Bhutan. After confirming the findings, an actionable, significant, measurable and simple QoL assessment for Bhutan will be proposed which would contribute towards timely and informed decision making processes of public policy. Though GNH is the guiding development philosophy of Bhutan, its actual operationalization with scientific measures is still evolving and require continuous review and construct to meet the cross-situational needs with changing times. Further, the constant evaluation of QoL with GNH would be time consuming, extensive and costly as it requires comprehensive responses for over 124 variables from an individual and household levels. This extensive assessment is also conducted after every five years and would create time gap and underprovide evidence of people's actual quality of life. This would consequently undermine timely and right intervention in the fast changing society vis-à-vis the needs.

### 1.3. Scope of the Study

The purpose of the study demands intensive background on GNH and its ability to determine contextual QoL, thus some comprehensive aspects of GNH is captured in the study including its attributes and strengths and weaknesses. The study also covers reasonable range of literature review to find the qualitative analysis, primarily encompassing diverse studies on such as, amorphous sate of QoL, foundation and attributes of QoL, QoL as contextual application and most essentially how GNH subsumes QoL as a contextual placebased model. As the study considers Thimphu urban as a case study, brief background on urban policy environment and planning is captured to provide some basic ideas. QoL for Thimphu urban is then assessed using appropriate methodology and QoL Model. The methodology discusses indicator construction and determinants using methods like interview, content judgment and description. The discussion on the study findings sketchily draws strength to support this report. Limitations and significance of the study are also highlighted before drawing the conclusion. Exclusively, the significance of the study underscores the potential set of recommendations for the future course of action.

# 2. Background of Gross National Happiness

History of Happiness and Public Value Management (PVM) in the country dates back to the time of Drukpa abbot Zhabdrung Ngawang Namgyel (1594–1651), who visited Bhutan in 1616 and shaped the country's history. He promulgated the first set of Bhutanese laws in 1651 within which ten pious acts, known as Lhachoe Gyewa Chu and the sixteen virtuous acts of social piety, referred as the Michoe Tsangma Chudrug was introduced (Whitecross, 2004; Royal Court of Justice, 2016). These are the basis of codification of law that states that if the government cannot create the Happiness (*dhe-ki*) for the people there is no reason to exist the government (Ura, et al., 2012; Ura 2011b).

The concept of GNH was promulgated by the fourth King of Bhutan, Jigme Singye Wangchuck. (Kyi, 2015) said that the King's reign was one of great changes shaped by a vision that was sensitive to the past legacies and needs of the future. The King said he was interested not only in Gross Domestic Product indicating the total income of the country, but riveted more in Gross National Happiness to represent the spiritual and emotional wellbeing of his subjects. This is a sensible development course chosen by the King in achieving steady progress through the path of modernization without undue damage onto its beautiful endowments (Kyi, 2015).

The present King, Jigme Khesar Namgyel Wangchuck also reaffirmed the importance of happiness in his coronation speech in 2008 when he emphasized that the true essence of Gross National Happiness is 'Development with Values' that encompasses holistic, balanced, collective, sustainable and equitable development.

Technically. in operationalizing GNH in the overall development perspective, it is characterized through four strategic areas, which is also called as four pillars of GNH. The four pillars are i) Sustainable and equitable socio-economic development: ii) Environmental conservation: iii) Preservation and promotion of culture; and iv) Good governance. These four pillars then constitute 9 domains and 33 indicators. The 33 indicators are divided into over 124 variables to measure happiness through multidimensional approach. The nine domains were selected on normative grounds that particularly determine key areas of GNH. Conventionally, the three domains like health, education and living standard are the traditional public policy dimensions, ecological and good governance are noble areas becoming common across and the psychological wellbeing, time use, community vitality and cultural diversity are distinct and innovative attributes.

### 2.1. Attributes

The GNH Index is set in order to indicate the trend and measurement over time. According to Ura et al. (2012), the index is on single number composite ranging from zero to one with zero as least value and one as highest value. For example, as per GNH Survey 2015, the GNH Index value for 2015 is 0.756, which is fairly on higher side. In determining this value, people are categorized as happy when they meet sufficiency in six of the nine domains, or when they attain sufficiency in at least 66% of the 33 weighted indicators. Technically, GNH Index is equal to 1 minus the product of HA (GNH=1-HA), where H is the headcount representing percentage of people who do not enjoy sufficiency in six or more domains and A is the average proportion of domains within which people those are not yet happy, still lack sufficiency (it indicates the breath of shortfalls).

## 2.2. Strengths

Recently weaknesses have been underpinned against New Public Management (NPM) due to deficiency of wellbeing constituents and manifesting self-interests groups among politicians or bureaucrats (O'Flynn 2007). In order to redress or search beyond NPM, Public Value Management (PVM) is considered as holistic conventional public policy paradigm, which derived prolific interest from both practitioners and academicians (O'Flynn, 2007). In Bhutan, GNH inherently takes care of PVM and assumes it is adopted way before the conception of PVM into public policy realm. There is hardly any tool to indicate and measure people's emotional state in governance because of which objective aspects and material development takes lead resulting in multiple complexities and issues. GNH determines not only objective aspects but also subjective wellbeing or the emotional state for inclusive and informed practical action (Ura et al., 2012). Besides, as GNH constitutes psychological wellbeing as one of nine domains, it integrally determines the quality of life, even more profound in comparison to most of the other conventional OoL approaches.

### 2.3. Weaknesses

The criticism is why Bhutan is not ranked on the top list of global happiness index today. As per the World Happiness Report (2016), Denmark is ranked first and Bhutan ranked 84th out of 150 countries, despite declaring that its development is driven by happiness model. Further, to empirically derive and define happiness itself is another perceived confrontation facing parallel to the pragmatic conventional economic models. The GNH index cannot include all round relevant aspects of GNH to sufficiently guide policy. It requires a finite and narrower analysis of policies and programmes, customised to local realities (Ura et al., 2012). GNH, as inherently inoculate social or individual contentment,

could be challenging to devise and address the diverse needs in the materialistic world. (Lepage, 2009) agrees that GNH would define quality of life but questions how it could take exhaustive structuration of quality of life description in conformation with other QoL index like Economic Intelligence Unit (EIU). One critical observation is that the GNH survey is carried out after every five years and it could create gap in making timely informed decision in first changing situation and need.

### 3. Literature Review

### 3.1. QoL as an amorphous state

Despite extensive researches on objective and subjective aspects so far, there has been no definite or widely accepted theory or empirical tools to determine QoL (Brown et al., 2004). (Awais, 2011) recounts Rosenberg (1992), Bowling (1995; 1996), and Bowling et al. (2001) that OoL generally defined at macro level considering the societal or objective aspects and micro level with individual or subjective aspects, in which the former constitutes employment, income, education, housing, other living and environmental circumstances, and latter constitutes the individual experiences and values related to well-being, happiness and life satisfaction. Further, when it comes to model, it differs and persist with lot of inconsistencies depending upon time and situation. (Brown et al., 2004) investigated a couple of researches ranging from the Maslow's hierarchy of human needs to classical analysis, such as psychological well-being, morale, happiness life and satisfaction conducted by Andrews et al. (1986; 1976), social expectations by Calman (1984) and unique perception of individuals by O'Boyle (1997) and it was found out that OoL is complex and nebulous. It remains in an amorphous state of interacting objective and subjective parameters until it attains a state of homeostasis by itself (Lawton, 1991). The essential mediator of adaptation process to attain homeostasis is called 'response shift', during which changing internal standards and values, the response or the perception to OoL does change concurrently (Sprangers et al., 1999). Similarly, Donoghue

(2004) termed it as 'coping mechanism' that cope up with deteriorating health or circumstances and leading optimistic perception of higher QoL.

### 3.2. Foundation and diverse attributes of QoL

QoL indicators is generally constructed towards determining happiness and life satisfaction but inherently it is grounded on Maslow's hierarchy of needs pyramid. According to Calman (1984), QoL changes with time and under normal circumstance expressed in terms of satisfaction, it is happiness. contentment, fulfilment and ability to cope. Further the 'Gap Theory' according to Calman (1984) or the relative deprivation theory defines that the OoL is sum total of differences between expectation and present experience at given period of time (Bowling, 2001). The expectation is not confined to material wellbeing alone as Esterlin (1974; 1995; 2001) argues that income is not systematically accompanied by real essence of happiness. Awais (2011, p. 6-7) highlights GNH, Gross Domestic Product (GDP), Multidimensional Poverty Index (MPI), Human Development Index (HDI), Index of Sustainable Economic Welfare (ISEW) or Genuine Progress Indicator (GPI), Gini Coefficient, Wealth Estimates, Private Product Remaining, European Quality of Life Survey, Happy Planet Index as existing scientific approaches of measuring QoL today. These methods are embedded with tangible and intangible constituents, but largely predominant with material attributes. According to Aging and Mental Health (2003), QoL measures four ontologically grounded domains, such as control, autonomy, pleasure, and self-realization. While Economist Intelligence Unit (2005) defines through nine determinants, such as, material wellbeing, health, political stability and security, family life, community life, climate and geography, job security, political freedom and gender equality. (Kahneman et al., 2006) assess more from subjective point of view using U-Index (proportion of time individual sends on unpleasant or undesirable sate). The U-index is computed for each individual and averaged over a sample of individuals to determine the net affect. (Nakanishi, 2015) determine QoL through set of indicators categorized under five domains, such as, community

safety and security, prosperity and diversity, culture and education, community wellbeing, quality environment and sustainability. (Higgins et al., 2012) accounts according to Evaluation body of England and Wales assessment themes, in which the dataset spans 10 distinct QoL themes, nine of which are numeric and analyzable. The themes are, community safety, health/social well-being, environment, economic wellbeing, community cohesion, housing, education/life-long learning, culture and leisure, transport, and people and place.

(Galloway, 2006) states that according to Taillefer et al. (2003, p. 299) identified three types of QoL models, such as conceptual model, conceptual framework and theoretical framework and he recounts the findings of Hagerty et al. (2001) that having reviewed 22 most commonly used QoL models around the world found that the use of tested conceptual model of QoL is deficient in all cases. However, reviewing and reading 9749 abstracts, 2455 articles and in-depth studies of 897 articles on QoL, Galloway (2006) uncovered the core domains and indicators (Appendix 6) for QoL commonly used and revolve around material and emotional wellbeing, community and social vitality and heath and life satisfaction. Similarly, Brown et al. (2004) remarks poor health and social relationships, poor dwelling and neighborhood are persistent in most studies as deleterious that take quality away form lives.

## 3.3. QoL as contextual application

The Aga Khan Development Network (2013) carried out exploratory studies to comprehend people's culturally and socially embedded outlook for the 'good quality of life' and it was confirmed that the topics, domains and indicators for the assessments are highly place-based and need-based with time. For instance, in Britain the labour Government conducted monitoring of QoL using 15 indicators, while Mercer Human Resource Consulting (2003) used 39 indicators depending upon the place, region and contextual needs (Brown et al., 2004). The Australian Centre for Quality of Life (2013) describes over 1200 instruments which purport to determine QoL but is unsuitable to use for general population and regions due to its idiosyncratic mixture of dependent variables with place. The literature on QoL during 1970s and 1980s account that the assessment of life satisfaction has been through work, health, community, family relationship, friends and standard of living, but overtime the determinants are changing, especially when safety and higher needs crucial reliant with place and situation (Brown et al., 2004).

(Mizobuchi, 2016) in the Journal of Happiness Studies espouses 'happiness sensitivity' is used to determine variance of subjective wellbeing from one country to another as it differs so much with differing socio-economic settings. While Galloway (2006) underlines that it is misleading to replicate or take a conception of QoL constructed in one country context to another or even from one geographic location, ethnic group, cultural and social setting to another. He recounts Keith (2001) stating that the dimensions or attributes of QoL largely differ from one culture to another and search for common and crossjurisdictional definition would be misleading.

# 3.4. GNH measures QoL

Defining OoL has been abstruse for guite a while and various definitions are widespread from researchers to derive conceptual clarity. As per the typologies highlighted in Appendix 6.1, most commonly understood is that OoL usually incorporates the idea of determining 'happiness and satisfaction' (Galloway, 2006). (Brown, et al., 2004) infers that OoL is inclusive and must determine through multidimensional approach, in which measuring change in QoL must account several variables that comprises actual changes in circumstances and circumstances of interest. Further, Fernandez-Ballesteros (1998) and Galloway (2006), with extensive literature review, defines QoL as constructed on multidimensionality approach with multiple ingredients. (Ura, et at., 2012) explained that the operationalization of GNH deploys multidimensional approach and scientifically encompasses holistic measurement. While the assessment of QoL in most cases are lopsided, as Nakanishi (2015) underscored, the indicators in introducing QoL into policy

making has been placing greater importance on economic aspects without considering multidimensionality. (Awais, 2011) mentioned that it is of no use having indicators that increases but fail to increase the society. In fact, GNH is recommended as one of the outstanding methods to measure QoL (Awais, 2011). According to Lepage (2009), happiness is considered as synonymous to QoL or key attribute to QoL. He upholds GNH of Bhutan as definition of QoL in a holistic approach that consists agglomeration of multiple ingredients.

GNH for Bhutan determines 'happiness sensitivity' in its own way. In order to create the sensory line of happiness, according to Provisional Findings (2015, p. 133), sufficiency cutoff (k = 66%) is set to draw sensitivity line and determines the people who attain 66% and above sufficiency are considered as happy. The robustness of this cutoff (k=66%) is tested with analysis on range of plausible cutoffs (CBS, 2015).

# 4. Thimphu Urban

### 4.1. Urban policy environment

The Roval Government of Bhutan (RGoB) has assigned a lot of emphasis on enhancing adequate capacities and developing a strategy for national urban development (MoWHS, 2008). In 2008, RGoB launched Bhutan National Urbanization Strategy (BNUS) and Thimphu City Development Strategy (TCDS) simultaneously, in order to place strategic policy framework for the national urban development, particularly concerning built environment of the national capital city. Besides, RGoB has also worked on development of legal and institutional framework for the country to improve urban development. For instance, the National Housing Policy, 2002 was adopted, bv establishment of National Housing followed the Development Corporation (NHDC) in 2003. In order to build individual financial capacity for urban residents to cope up with urban strategies, legal and financial framework of foreclosure to facilitate mortgage lending was developed as well.

## 4.2. Urban Planning

Since the establishment of Thimphu as capital city of Bhutan in 1955, development of modern amenities took place, predominantly driven contemporary urbanization bv conceptions. The first town plan of the city was prepared in 1964 but remained unimplemented due to lack of capacity and resources (MoWHS, 2008). According to Thimphu City Development Strategy (2008), a structure plan that was prepared in 1986 guided Thimphu urban development through 1990s. Subsequently in 1998 another strategic plan was prepared to pursue the need of extending the municipal boundary and command over larger area. In the same year, Council of Ministers issued an executive order to further guide the urban development with the objective to convert Thimphu as a dream city of all Bhutanese which is culturally vibrant, environmentally sustainable and most importantly, people friendly. Over the years, developments both tangible and intangibles took place with diverse urban planning modalities but mostly in uncoordinated fashion. However, with the BNUS in place, planning in Thimphu urban has been more coordinated and strategized. According to MoWHS (2008), it is observed that there is skewed pattern of distribution of urban population in the nation and the relative concentration of the nation's urban population is in Thimphu urban, making it a primate city. At present, based on the published information of the Census 2005, Thimphu houses approximately 40% of the nation's urban population and over 70% of its district population. It is also projected that the city shall house approximately 88% of the nation's urban population by the year 2020 if the current growth rate continues. Considering this current situation and the projected urban resident population, the study of OoL under this specific capital city would exhibit the representative findings of Bhutan urban society.

# 5. Analyzing Thimphu urban quality of life

# 5.1. Methodology

The GNH indicators, beside serving as basis for shaping government policy, decision making process and review of its policy implication, it allows the public to evaluate changes and improvements of QoL (CBS, 2015). As GNH index and QoL are comparably founded on multidimensional approach considering both objective and subjective determinants as highlighted in literature review, there would exist inherent common features. Deriving indicators to determine the quality of Bhutanese life from GNH would not be grossly incorrect. GNH reflects normative values that are rooted into sociocultural settings of the Bhutanese society, bears statistical properties and robustness, indicates happiness or the true subjective aspects overtime and are aligned and related to the public actions and policy formulations (Ura et al., 2012.



*Figure 1.* Shows derivation of QoL domains and indicators from GNH

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The 5 dimensions with 15 indicators is derived from the 9 domains and 33 indicators of GNH as shown in Figure 1 to assess the quality of Bhutanese life, taking Thimphu urban as a case.

In order to derive 15 indicators for quality of life, an informal interview was conducted with randomly selected Bhutanese citizens, who are currently living in Canberra for one to two years. The respondents (n=10, 2016) were mostly Thimphu urban residents from diverse occupational backgrounds and diverse living standards. The responses with respect to relevancy of 33 GNH indicators to their individual QoL and living environment were captured in both structured and unstructured questionnaires. These responses were then processed in SPSS (Statistical Package for the Social Science) to get generic descriptive statistical understanding and basis. The SPSS output of 33 GNH indicators where then ranked according to their relevancy and top 15 were selected for QoL indicators (Appendix 1).

The following considerations were taken while selecting the indicators:

### 5.1.1. Interview Result

- The indicators that ranked 1 to 15 was selected out of 33, considering interview responses and also ensuring inherent constituent of the unselected ones are subsumed;
- Indicator 2 (positive emotion) and 11 (literacy) both ranked 3<sup>rd</sup> according to interview responses, while indicator 2 is subsumed under 'emotional balance' and 11 under 'schooling';
- Indicator 8 (mental health) and 10 (sleep) both ranked 12<sup>th</sup>, but both are subsumed under 'Heath' dimension;

- Indicator 9 (work) and 29 (environment responsibility) both ranked 14<sup>th</sup>, but 9 is included under 'community vitality' and 29 under 'living environment and standard';
- The interview revealed that indicators like, fundamental rights, political participation, urban issue (from environment point of view), native language, artisan skills and etiquette are not much relevant to their individual QoL or living environment.

### 5.1.2. Subsumable in content

- Dimension 1 (Psychological Wellbeing) of QoL includes all indicators of GNH domain 1.
- Dimension 2 (Health) of QoL includes all intrinsic essence of four indicators of GNH domain 2, where 'self reported physical health' and 'self reported mental heath' covers all aspects of subjective and objective aspect of individual health;
- Dimension 3 (Community Vitality) of QoL combines domain 5 of GNH at essence level by including 'cultural participation' indicator. The 'community relationship' and 'family bonding' inherently covers the essence of four indicators of GNH domain 3;
- Dimension 4 (Education) of QoL takes three of four indicators of GNH domain 4. The 'schooling' would take care of 'literacy' indicator and 'value' would take care of the 'spirituality' indicator;
- Dimension 5 (Living Environment & Standard) of QoL takes the essence of domains 6, 7, 8 and 9 of GNH. The 'access to social service facilities' would take the essence of GNH domain 6, 'ecological and environmental qualities' takes the essence of GNH domain 8, 'safety in the community' take the essence of GNH domain 7 and 'income' and 'housing' take essence of GNH domain 9 (as shown in the Figure 1).

# 5.1.3. Indicator Description

### Dimension 1: Psychological Wellbeing

1.1. Life Satisfaction: Indicates through level of satisfaction from the standard of living with 4-point scale – from very satisfied to very dissatisfied levels. The EU (2015) recounts Pavot and Diener (2008) that the 'life satisfaction' is distinct construct representing a cognitive and global evaluation of the quality of life in total; and

1.2. Emotional Balance: The ability to enjoy normal dayto-day activities would indicate the emotional balance with 4-point scale – from more than usual to much less then unusual levels. (Diener et al., 2008) have underpinned that the experience of emotions relate to good life depends on the values that characterize one's society.

### Dimension 2: Health

2.1. Self-Reported Physical Health: Determined through the extend of physical ability with 4-point scale from excellent to poor levels. Bircher and Wehkamp (2011) defines health as a dynamic state of wellbeing, which is described by physical and mental potential, to satisfy the demands of life corresponding with age, culture, and personal duty; and

2.3. Self-Reported Mental Health: Assessed through the extend of mental extreme like thought of committing suicide and depression in last 12 months with 4-point scale – yes or no. Primarily, mental health or in psychiatric filed, the main focus of QoL assessment has been on the symptomatic of mentally ill persons suffering from long-term and disabling illnesses such as schizophrenia, chronic depression, manic-depressive illness, and severe personality disorders (Gigantesco et al., 2011).

### Dimension 3: Community Vitality

3.1. Community Relationship: Assessed through helping each other in a neighbourhood with 4-point scale – always to never. The OECD (2011) recounts OECD (2001) that as an instinctive social creature, the quality of the relations in a community or society is crucial factor in determining the wellbeing or QoL;

3.2. Family Bonding: Assessed through the family members' care for each other with 4-point scale – disagree to agree. (Greenhaus et al., 2003) noted that the quality of life is unvaryingly highest for those who are more engaged or more satisfied in family than work, and vice versa; and

*3.3. Cultural Participation:* Assessed through the number of days one spend in the past 12 in cultural activities. The positive impact of participation in cultural activities are accepted for almost 40 years by a scientific measurement scale and concerns increased to gauge the quality of life (UNESCO, 2009).

#### Dimension 4: Education

4.1. Schooling: Directly indicated through formal and non-formal education levels 4-point scale – pre-primary to bachelors' degree levels. Schooling in life makes invariably high reason to influence on one's wellbeing, with the better educated individuals there is potentially higher wages and have higher probabilities of job and opportunities that contributes to one's quality of life (OECD, 2011);

4.2. Knowledge: Indicated through literacy in general with 4-point scale – literate or illiterate. According to Vision 2020 (1999) states that the importance of acquiring knowledge in its the rich folklore, legends and myths transmit values and instills foundation for awareness and indebtedness; and

4.3. Value: Indicated through belief in 'karma' in the course of daily life with 4-point scale – regularly to not at all. The values are fundamental that shapes people's characters and choices one makes in life, which presumably determines the subjective aspects of QoL.

Dimension 5: Living Environment and Standard

5.1. Access to Social Services: Indicated through the performances of government in last 12 months in reducing gap between rich and poor with 5-point scale – very good to very poor. By 'access' means reasonable or fair share of resources and opportunities, cutting across essentially every sphere imaginable including social support system, adequate to respond to and meet the basic needs (Michalski, 2001);

5.2. Ecological and Environment Qualities: Indicated through the level of responsibilities in qualities of environment with 4-point scale – highly responsible to not at all responsible. The environment where people live incredibly matters the QoL, environmental pollution itself accounts <sup>1</sup>/<sub>4</sub> of the global burden of diseases from the poor environment conditions (OECD, 2011);

5.3. Safety in the Community: Indicated through the contentment of victims of crimes and violence environment in a community with 4-point scale – very discontented to do not have complain. The OECD (2011) on safety or personal security highlights that it is core element for wellbeing of individual or society/community as a whole, for instance experiencing a crime is one key factor that shapes security;

5.4. Housing: Assessed through dwelling ownership with 3-point scale – rented to owned. The housing cost burden and also quality and environment are included

as one of the major issues affecting QoL by (Streimikiene, 2015); and

5.5. Income: Indicated through the level of income from all sources by 5 pointer scale – very high to very low. According to Kahneman & Deaton (2010) found that the life evaluation happens when plotted against log income rises steadily. While emotional wellbeing also rises with log income, but beyond an annual income of \$75,000 it has no further progress.

These indicators conceded in this paper comprehensively subsumes the 33 indicators of GNH and would determines contextual QoL. While Nakanishi (2015) applied top-down and bottom-up approach in selecting indicators for assessing QoL. Similar considerations have been in selecting indicators comprising individual views of the random selected residents (although not representative due to sample size) and already formulated set of GNH at policy level. These selected indicators are then reviewed exploring various studies carried out in the relevant field and then applied AIMS (Action focused, Important, Measurable and Simple)1 criteria to pass the final selection. Further, the indicators were then categorized into five dimensions as shown in Figure 1 and under indicator description above.

### 5.1.4. QoL model

The QoL model as shown in Appendix 2 is applied as per Nakanishi (2015, pp.77) to carry out QoL computations for gender, age-cohorts and required variables considered under five dimensions and 15 indicators in the study. For an easier computations purpose, the QoL model is built in a excel functions as shown the steps (Appendix 5), that inherently gives individual's satisfaction score and influence of individual's value (weighting). The allocation of weighting differs as some apply experts' weighting and some self reported

<sup>&</sup>lt;sup>1</sup> AIMS criteria according to Nakanishi (2015) based on Higginson et al (2003).

individual weighting. In this case, the weighting is allocated depending on contextual preferences as indicated in the functions applied.

# 5.2. Data

The latest decomposable data set of Thimphu urban of GNH Survey 2015 was obtained from the Centre for Bhutan studies (CBS) to conduct this analysis. The most relevant data and variables against the selected indicators were segregated from the whole and reviewed and validated before conducting arithmetical valuation with OoL model. As such the data set is from an extensive and recent survey which covers 865 residents out of 79,185 (2005) Thimphu urban population. The survev used multi-stage stratified random sampling methodology to ensure representative sample comprehensively (CBS, 2015). The data set constitutes demographic details and wide range of responses against more then 124 variables.

Out of 865 respondents, 591 were female (68%) and 274 males (32%), indicating double the respondents were female, by 36% higher than male. In breaking down to age cohorts, age 15-25 is (N=219) or 25.3% of total the respondents and likewise age 25-35 is (N=312, 36.1%), 35-45 (N=181, 20.9%), 45-55 (N=89, 10.3%), 55-65 (N=40, 4.6%), 65-75 (N=21, 2.4%) and 75-85 (N=3,0.3%).

# 5.3. QoL in Thimphu Urban

In carrying out the QoL assessment based on data set acquired from Centre for Bhutan Studies, the satisfaction levels/scores<sup>2</sup> were estimated for all indicators. The scoring of estimation levels was carried out using the scale of 0 - 100 as applied (steps shown in Appendix 5) in the assessment of QoL of Canberra, Australia (Nakanishi, 2015). The average satisfaction in the respective dimensions are presented in five age cohorts as shown in Figure 2. Except for the age between 75-85 years, it is revealed that the satisfaction of health

<sup>&</sup>lt;sup>2</sup> Appendix 3 (table) consists satisfaction scores and estimated QoL

dimension is leading amongst other dimensions. Applying QoL model to the above satisfaction scores, health still leads in terms of QoL. In gender comparison, as shown in Figure 3, female has moderately higher QoL than male, but shows slightly lower in the overall QoL assessment.



Figure 2. Satisfaction Scores by Age Cohorts



Figure 3. QoL by Gender

Considering the quality of education concern in Bhutan (Sherub, 2009, pp.11), it is also worthwhile to examine the relationship between quality of education and QoL. It is revealed, as indicated in Figure 4, that people with higher level of schooling have higher QoL in Thimphu urban, people with higher education have higher QoL. The analysis also demonstrated that there is high correlation between QoL and

overall education levels by  $R^2 = 0.91223$  with the line of best fit at y=01236x+1.7333. Similarly, this correlation is almost same in case of GNH index as indicated in Figure 5.



Figure 4. QoL line fit plot (reference to education)



Figure 5. GNH Index by Education levels (CBS, 2015)

Comparing QoL between literate and illiterate categories, as indicated in Figure 6, the literate section of Thimphu urban has comparatively higher QoL than the illiterate ones. The study also exclusively assesses the variable of values contribution towards QoL considering it as one of the key inherent constitutes of both QoL and GNH. As indicated in the Figure 6, there is high QoL amongst Thimphu urban residents who practices values on regular basis than residents who do it occasional, rarely and not at all.



Figure 6. QoL in literature & values

# 6. Discussion

# 6.1. Conforming Relationship between GNH and QoL

As discussed under the literature review and methodology, it may be concluded that GNH can broadly function to determine the OoL in Bhutan context. However, assessing OoL exclusively from GNH need to ensure how OoL assessment proposed would inherently constitute GNH attributes. In order to confirm this, relationships between the two have to be validated. In doing so, it is reasonable to compare OoL assessment using QoL Model (Nakanishi, 2015) and the recent estimated GNH index of 2015. OoL assessment proposed in this study is based on the recent data collected through a survey conducted by the Centre for Bhutan Studies. It provides common data platform with that of GNH but involves different assessment models. This gives better way to test the relationship between GNH and QoL. The assessment using QoL Model as indicated under 'OoL in Thimphu Urban' hardly vary from the GNH index and the survey findings of 2015. Surprisingly, they exhibit almost similar correlation close to 1 (high). Taking gender, age groups and education into consideration, as highlighted earlier, it was found out that there is comparably the same configuration. The assessment of OoL in gender decomposition reveals that in both the cases overall male has higher QoL or the sufficiency attainment than

female. As indicated in Figure 3 the QoL assessment for male is higher, which is similar to that of sufficiency attainment of GNH as indicated in Figure 7.



Figure 7. The % of people enjoying sufficiency by gender in Bhutan (CBS, 2015)

In the age categories, it is indicated that the highest GNH index value is between age 25-29 years as indicated in Figure 8 which is similar with that of QoL assessment and satisfaction scores of this study. In comparison, there is hardly huge differences as indicated through the QoL by age cohorts (Figure 9) and satisfaction score (Figure 2). Like wise, there is no huge variation between the domains/dimensions correspond to both the cases.



Figure 8. GNH Index by Age Cohorts (CBS, 2015)



Figure 9. QoL by Age Cohorts

The following key points reaffirm how QoL assessment proposed in this study inherently considers GNH attributes:

- The literature review highlights both GNH and QoL is grounded on multidimensional approaches.
- The methodology underlines GNH in Bhutan context can broadly (not specific and timely) serve QoL assessment as it is place-based and constructed on required scientific approaches.
- The indicators or determinants under GNH domains and QoL dimensions show high correlation in most cases. For instance, in cases like schooling levels, literacy, values and the variables across age categories correspond high correlation and bears common findings.

# 6.2. Deprived of QoL

It is apparent through the analysis that the female in general has low QoL, induced by low QoL in education, living environment and psychology domains. Although there is higher QoL for female in terms of health and community vitality, there is still comparatively low in rest other three domains, indicating there is prevalence of imbalances of interventions to ensure the QoL.

Further, QoL observation in different age cohorts revealed that there is fairly higher OoL in two extremes of the age groups (age between 15-25 and 75-85). It could be discernable that as the society is inherently bonded by the endemic 'reciprocity' of kindness and care values, the youth and senior sections of population who are out of labour participation age groups receive full support and care from the respective family members and the royal welfare schemes. This undeniably might have contributed in ensuring higher QoL in those age groups comparing with others. However, there is low OoL in the age groups of 45-55 and 65-75, which both falls under the adult labour force participation group. According to Rapten (2014), the adult Labour Force Participation Rate (LFPR) is noticeably high at 77% in 2012 comparing with other LFPR groups. Moreover, normatively age group between 45-55 is considered as the most responsible age group who makes higher socio-economic contributions in the society. It would be unmerited with the lower QoL for those who makes higher labour force participation. Another low OoL is the age group between 65-75, where people face lot of insecurities and uncertainties once it crosses active working age group.

Like wise, discerning in terms of literacy point of view, the illiterate sections of the population, exclusively the ones who do not practice values are highly deficient with the QoL.

# 6.3. Urban and Rural QoL

This study does not assess QoL in rural context but having lot of resemblance between the recent GNH findings and this QoL assessment, it is sensible to draw some rural and urban comparison to a broader discussion in this study. As per the Provisional Findings of 2015 Gross National Happiness Survey, health, cultural diversity and community vitality are the highest contributors to GNH in rural areas, and living standards and educations are the highest in urban areas. Certainly, with lot of service amenities and easy access to physical comfort and opportunities, urban areas would definitely score higher on living standard in comparison to rural areas for both GNH and QoL assessment. As highlighted earlier, community vitality score is higher in the rural than urban areas mainly because rapid urbanization is accompanied by certain form of socio-cultural deterioration.

However, the contribution by ecological diversity and resilience appears almost equal in both rural and urban areas. Residents in rural areas experience higher sufficiency in community relationship, donations, ecological issues, safety and political participation compared to urban areas. While the urban counterparts have better quality housing, higher income, more assets, longer years of education, literacy and better access to services compared to rural areas (CBS 2015, p. 40). These attributes favoring urban areas would be relatedly applied to Thimphu urban to cover wider understanding of the situation in this QoL assessment.

# 7. Significance of the Study

Irrespective of size and extent of this assessment, QoL assessment approach is the first of its kind for Bhutan. This QoL assessment though confined to Thimphu urban fairly encompasses the understanding of QoL within the whole country in reference to GNH perspectives. In order to understand and communicate with emerging QoL language for the country, the study is carried out anticipating wider use in times to come for better policy formulation, harmonized with the dynamic model and robust indicators by future researchers. This would significantly indicate timely and valid QoL than GNH broadly does and dispense value addition towards the practicality of GNH framework.

However, the study proposes the following significances, accentuated from the overall findings:

• There is prevalence of some form of gender disparity in terms of intra-household investment, resource

allocation, property share, household duties and enrolment to education in Bhutan (Choden, 2014). However, amongst all, education could be viewed as one of the severe forms of gender disparity. This is further corroborated by this study exhibiting lower QoL in female than male with regard to education domain. In order to ensure the balanced QoL between female and male, it is highly significant to review and translate this into policy measures and interventions. There may also have other underlying causes of disparity in education in the country.

- The practice of values is one critical factor that • enhances the perceived QoL as exhibited through this study. However, the existing education system has not been aligned with the determinable value promotion in the society. The risk is with the contemporary education modalities, it subtly diminishes the prevailing values and the community vitality. The with inclusive educational intervention quality relevancy and contextual approach is equally important to enhance the QoL, not off-putting the ubiquitous technological disruptions around.
- One buying point from this study is the adverse impact • of the unconnected urbanization process. Taking Thimphu urban into account, there is indication of lowering psychology and community vitality in urbanization process. As indicated from the study, the OoL contribution from psychology domain is lowest out of five domains in the urban settlement. There may be a reasonable set of program interventions to promote community vitality and enhance psychology wellbeing. The culturally activated public spaces; friendly neighborhood parks and play; voluntary spiritual and community services; contextual/ relevant innovations/nudges and creative industries: investment ecosystem and benefit sharing: and revolutionary livability cities and transformative growth

may be recommended for the urban development policies.

- The university levels of education need to be enhanced with pragmatic skills orientation and contextual STEM promotions. The country still depends on rhetoric and uncertain abroad universities/institutions that barely has value addition in the transformative skills and knowledge requirements of the changing need and time. While, the study revealed that the QoL has very high correlation with the levels of education and need right and relevancy of quality of education system.
- The life security schemes including secured housing may be proposed with in-depth studies considering contemporary means-tested benefits, targeting population, particularly right after the active working age who are experiencing lowest QoL, as exhibited in the study.
- Finally, QoL mapping by deploying GIS (Global Information System) may be recommended to comprehensively relate with the existing spatial information and to meticulously assist the public policies and decision making processes of the country on a real time basis.

# 8. Limitations

The study assesses QoL of Thimphu urban with a resident population of 79,185 to derive empirical findings. The findings are then generalized to develop relationship between GNH and QoL without having undertaken nationwide QoL assessment. The study would then implicit certain limitation, as for a study that involves correlation and randomized experiment involve limitations with respects to generality of findings (Simon et al., 2013). The rural QoL is also not empirically assessed to make holistic comparison mainly because the study aims to select specific geographic location as scope of the study. Besides, the study has also not considered exclusive assessment of QoL of residents under unhappy categories (56.6% of total population of Thimphu)<sup>3</sup> to reveal explicit finding to make the case strong. However, as the study is based on responses of huge sample size of (N=865), it is assumed that assessment would have close representation. Nevertheless, Simon et al. (2013) stated that the 'case study' approach is a subjective but require additional research to verify, validate and test whether findings from one study would generalize elsewhere or not.

Moreover, within the scope of this study QoL-oriented policy evaluation is not undertaken, as one key important aspect of QoL assessment is to have QoL-oriented policy evaluation, in which the estimation of change in QoL level is used by setting scenarios in considering the policy measures to enhance the quality of life (Nakanishi, 2015).

# 9. Conclusion

The OoL may be understood as balanced and holistic satisfaction of life, viewed through different idiosyncratic composition of place, time and situation vis-à-vis the changing needs. GNH in a way is determining OoL in Bhutanese context. however, precise OoL mechanism is deficient to effect timely and accurate decision making process. Though GNH is grounded on multidimensional approach to determine OoL it perceived as extensive, vast and cost intensive to carryout reasonable frequency of assessments. Considering the relationship between GNH and QoL as conceded above, QoL assessment for Bhutan for the first time is hypothetically established with this study. The 15 indicators of QoL that subsumes 33 indicators of GNH explains OoL experienced by Thimphu urban residents which is almost observed identical across the dimensions, except with heath which is relatively higher. In comparison with the findings from recent GNH survey 2015 and this QoL assessment, the assessment

<sup>&</sup>lt;sup>3</sup> Disaggregated unhappy % population of Thimphu Urban from unhappy (8.75%) and narrowly happy (47.87%) at national level.
demonstrated a correlation close to  $R^2 = 0.91223$ , meaning there is high correlation between the variables. The significance of the findings confirms that QoL mechanism would be efficient, effective and realistic if it is place-based and contextual in approach. The QoL assessment determined the section of population who are deprived with quality of life and recommends policy review, program interventions and infrastructural integration in three domains of QoL such as education, psychology and community vitality.

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# 11. Appendixes

Appendix 1. Ranking of GNH indictors with relevance to Quality of Life

SI	Q a/b	Relationships	N	Mean	Mean a&b	Std. Dev	Std. Dev a&b	Ranking Indicators
1	a	Indicator1 (Life Satisfaction) of domain 1 (Psychological wellbeing) to QoL	10	4.70		0.483		
	b	Indicator1 (Life Satisfaction) of domain 1 (Psychological wellbeing) to living environment	10	3.90	4.30	0.316	0.3995	10
2	a	Indicator2 (Positive Emotion) of domain 1 (Psychological wellbeing) to QoL	10	4.70		0.675		
	b	Indicator2 (Positive Emotion) of domain 1 (Psychological wellbeing) to living environment	10	4.60	4.65	0.699	0.687	3
3	а	Indicator3 (Negative Emotion) of domain 1 (Psychological wellbeing) to QoL	10	1.70		0.483		
	b	Indicator3 (Negative Emotion) of domain 1 (Psychological wellbeing) to living environment	10	2.40	2.05	1.075	0.779	23
4	a	Indicator4 (Spirituality) of domain 1 (Psychological wellbeing) to QoL	10	3.90		0.876		
	b	Indicator4 (Spirituality) of domain 1 (Psychological wellbeing) to living environment	10	3.60	3.75	0.843	0.8595	20
5	а	Indicator1 (self reported health) of domain 2 (Health) to QoL	10	4.60		0.516		

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1 1	l	I	1		I		I I	I I
	b	Indicator1 (self reported health) of domain 2 ( Health) to living environment	10	4.40	4.50	0.699	0.6075	6
6	a	Indicator2 (no. of healthy days) of domain 2 (Health) to QoL	10	4.40		0.699		
	b	Indicator2 (no. of healthy days) of domain 2 ( Health) to living environment	10	4.10	4.25	0.568	0.6335	11
7	а	Indicator3 (disability) of domain 2 (Health) to QoL	10	4.20		0.919		
	b	Indicator3 (disability) of domain 2 ( Health) to living environment	10	3.70	3.95	0.675	0.797	17
8	a	Indicator4 (mental health) of domain 2 (Health) to QoL	10	4.30		0.823		
	b	Indicator4 (mental health) of domain 2 ( Health) to living environment	10	4.10	4.20	0.994	0.9085	12
9	a	Indicator1 (work) of domain 3 (Time use) to QoL	10	4.30		0.675		
	b	Indicator1 (work) of domain 3 (Time use) to living environment	10	3.90	4.10	0.568	0.6215	14
10	a	Indicator2 (sleep) of domain 3 (Time use) to QoL	10	4.40		0.699		
	b	Indicator2 (sleep) of domain 3 (Time use) to living environment	10	4.00	4.20	0.816	0.7575	12
11	а	Indicator1 (Literacy) of domain 4 (Education) to QoL	10	4.80	4.65	0.422	0.697	3

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	b	Indicator1 (Literacy) of domain 4 (Education) to living environment	10	4.50		0.972		
12	a	Indicator2 (Schooling) of domain 4 (Education) to QoL	10	4.50		0.527		
	b	Indicator2 (Schooling) of domain 4 (Education) to living environment	10	4.20	4.35	0.919	0.723	9
13	a	Indicator3 (Knowledge) of domain 4 (Education) to QoL	10	4.30		0.823		
	Ъ	Indicator3 (Knowledge) of domain 4 (Education) to living environment	10	3.80	4.05	0.789	0.806	15
14	a	Indicator4 (Value) of domain 4 (Education) to QoL		4.80		0.422		
	b	Indicator4 (Value) of domain 4 (Education) to living environment		4.40	4.60	0.516	0.469	4
15	a	Indicator1 (Artisan skills) of domain 5 (Cultural Divr & Resil) to QoL		3.30		1.059		
	b	Indicator1 (Artisan skills) of domain 5 (Cultural Divr & Resi) to living environment		3.10	3.20	1.37	1.2145	22
16	a	Indicator2 (Cultural participation) of domain 5 (Cultural Divr & Resil) to QoL		3.80		0.789		
	b	Indicator2 (Cultural participation) of domain 5 (Cultural Divr & Resi) to living environment	10	3.70	3.75	1.337	1.063	20
17	a	Indicator3 (Speak native language) of domain 5 (Cultural Divr & Resil) to QoL		4.10	3.95	0.568	0.6785	17

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1 1		Indiantor? (Speels retire	ı	i i	i i		1	
	b	Indicator3 (Speak native language) of domain 5 (Cultural Divr & Resi) to living environment		3.80		0.789		
18	a	Indicator4 (Driglam Namzha) of domain 5 (Cultural Divr & Resil) to QoL		4.40		0.516		
	b	Indicator4 (Driglam Namzha) of domain 5 (Cultural Divr & Resi) to living environment		4.20	4.30	0.789	0.6525	10
19	a	Indicator1 (Political participation) of domain 6 (Good Governance) to QoL		3.60		0.516		
	b	Indicator1 (Political participation) of domain 6 (Good Governance) to living environment		3.40	3.50	1.265	0.8905	21
20	a	Indicator2 (Services) of domain 6 (Good Governance) to QoL		4.80		0.422		
	b	Indicator2 (Services) of domain 6 (Good Governance) to living environment		4.60	4.70	0.699	0.5605	2
21	a	Indicator3 (Governance performance) of domain 6 (Good Governance) to QoL		4.20		0.632		
	b	Indicator3 (Governance performance) of domain 6 (Good Governance) to living environment		4.10	4.15	0.738	0.685	13
22	a	Indicator4 (Fundamental rights) of domain 6 (Good Governance) to QoL		4.10		0.568		
	b	Indicator4 (Fundamental rights) of domain 6 (Good Governance) to living environment		3.90	4.00	0.876	0.722	16

# Does GNH Determine Contextual QoL?

23	a	Indicator 1 (donation time&money) of domain 7 (Community vitality) to QoL	10	3.90		0.568		
	b	Indicator 1 (donation time&money) of domain 7 (Community vitality) to living environment	10	3.70	3.80	1.059	0.8135	19
24	a	Indicator2 (safety) of domain 7 (Community vitality) to QoL	10	4.50		0.527		
	b	Indicator2 (safety) of domain 7 (Community vitality) to living environment	10	4.40	4.45	0.699	0.613	7
25	a	Indicator3 (Community friendship) of domain 7 (Community vitality) to QoL	10	4.40		0.516		
	b	Indicator3 (Community friendship) of domain 7 (Community vitality) to living environment	10	4.10	4.25	0.738	0.627	11
26	a	Indicator4 (Family) of domain 7 (Community vitality) to QoL	10	5.00		0		
	b	Indicator4 (Family) of domain 7 (Community vitality) to living environment	10	4.80	4.90	0.422	0.211	1
27	a	Indicator1 (Wildlife damage) of domain 8 (Ecological Divr & Resil) to QoL	10	4.20	3.90	0.919	1.1745	18
	b	Indicator1 (Wildife damage) o domain 8 (Ecological Divr & Resil) to living environment		3.60		1.43		
28	a	Indicator2 (Urban issue) o domain 8 (Ecological Divr & Resil) to QoL	f 10	0 4.10	3.95	0.568	0.8005	5 17

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	b	Indicator2 (Urban issue) of domain 8 (Ecological Divr & Resil) to living environment	10	3.80		1.033		
29	a	Indicator3 (Env. responsibility) of domain 8 (Ecological Divr & Resil) to QoL		4.30		0.675		
	b	Indicator3 (Env. responsibility) of domain 8 (Ecological Divr & Resil) to living environment		3.90	4.10	1.449	1.062	14
30	a	Indicator4 (Ecological issue) of domain 8 (Ecological Divr & Resil) to QoL	10	4.20		0.789		
	b	Indicator4 (Ecological issue) of domain 8 (Ecological Divr & Resil) to living environment	10	4.00	4.10	1.054	0.9215	14
31	a	Indicator1 (Income) of domain 9 (Living Standard) to QoL	10	4.50		0.527		
	b	Indicator1 (Income) of domain 9 (Living Standard) to living environment	10	4.30	4.40	0.823	0.675	8
32	a	Indicator2 (Assets) of domain 9 (Living Standard) to QoL	10	4.40		0.516		
	b	Indicator2 (Assets) of domain 9 (Living Standard) to living environment	10	3.90	4.15	0.738	0.627	13
33	а	Indicator3 (Housing) of domain 9 (Living Standard) to QoL	10	4.60		0.516		
	b	Indicator3 (Housing) of domain 9 (Living Standard) to living environment	10	4.50	4.55	0.707	0.6115	5

#### Appendix 2. The QoL model (Nakanishi, 2015) is used

$$QoL = \sum_{k=1} \{w_k S_k^{-\rho}\}^{-\frac{1}{\rho}}$$
(1)

Where  $S_k$  is the vector of satisfaction score by domain k;  $w_k$  is the vector of weight by domain k, and  $\rho$  is the parameter of elasticity of substitution across domains.

The weight of each domain is determined by applying the following model:

$$\Delta S_m = \sum_{k \neq 1} \frac{w_k}{w_m} \frac{S_{0k}^{-(1+\rho)}}{S_{0m}^{-(1+\rho)}} \Delta S_m$$
(2)

Where  $\Delta S_m$  is the improved satisfaction level of domain m,  $\Delta S_k$  is the sacrificed satisfaction level of domain k,  $S_{0k}$  and  $S_{0m}$  are the current satisfaction level of domains k and m,  $w_k$  and  $w_m$  are the values of domains k and m, and  $\rho$  is the substitution parameter between domains.

The weight  $w_k$  and  $\rho$  were estimated by a non-linear regression model of relational expression of the change in satisfaction score of domain k and satisfaction score of other domains, which were reflected by the change in individual's satisfaction for k.

		Satisfactio	Quality nof
Dimensions	Indicators	Scores	Life
1. Psychological	1.1. Life Satisfaction	70.65	16.07
	1.2. Emotional Balance	17.94	4.11
2. Health	2.1. Self Reported P/health	61.60	13.44
	2.2. Self Reported M/health	67.83	15.56
3. Community Vitality	3.1. Community Relationship	49.43	11.15
	3.2. Family Relationship	60.56	14.76
	3.3. Cultural Participation	54.41	11.23
4. Education	4.1. Schooling	33.76	8.23
	4.2. knowledge	55.51	11.46
	4.3. Values	74.72	18.08

Appendix 3.	Satisfaction	Scores and	l Quality	of Life	e by Indicators

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Living Environ & 5. Standard	5.1. Access to social services	43.68	9.01
	5.2. Ecological &Environment		
	Responsibilities	82.16	20.16
	5.3. Safety in Community	60.32	12.45
	5.4. Housing	30.73	6.88
	5.5. Income & Assets	50.19	11.33

Appendix 4. Taxonomy of QoL

### Appendix 4.1. Definitions

Туре	Name for type	Description
	(A) Expert/professional's	definitions
I	Global definitions	The most common, general, type of definition - usually say little about the possible components of QOL. Usually incorporate ideas of satisfaction/dissatisfaction or happiness/unhappiness.
п	Component definitions	Break down QOL into a series of components, dimensions or domains, or identify characteristics deemed essential to any evaluation of QOL.
II a	(non-research-specific)	Identify a number of dimensions of general QOL, but may not necessarily claim to cover every possible dimension
II b	(research-specific)	Explicitly tailored to meet the objectives of a specific piece of research. May therefore overlook or exclude certain dimensions of QOL considered less relevant to the research aims.
ш	Focused definitions	Refer only to one or a small number of the dimensions of QOL
III a	(explicit)	Focus on a small number of dimensions of QOL considered essential to QOL, but does so explicitly.
III b	(implicit)	Focus on one or two dimensions of the broader concept of QOL, but implicitly, without making this clear.
IV	Combination definitions	Global definitions (same as type I) that also specify dimensions (as in type II).

Source: Galloway (2006) based on Farquhar (1995)

Appendix 4.2: Subjective and objective indicators – Source: Galloway (2006) based on Rapley (2003, p.11)

Model Type	Description			
Conceptual Model	A model that specifies dimensions and properties of QOL (the least sophisticated type of model).			
Conceptual Framework	A model that describes, explains or predicts the nature of the directional relationships between elements or dimensions of QOL.			
Theoretical Framework	A model that includes the structure of the elements and their relationship within a theory that explains these relationships" (most sophisticated type of model).			

#### Appendix 4.3. Three types of QoL Model

Source: Galloway (2006) based on Taillefer et al (2003, p.299)

Appendix 4.4. Definitions based on objective and subjective indicators

Frequently used objective social indicators	Frequently used subjective social indicators				
(represent social data independently of individual evaluations)	(individuals' appraisal and evaluation of social conditions)				
Life expectancy	Sense of community				
Crime rate	Material possessions				
Unemployment rate	Sense of safety				
Gross Domestic Product	Happiness				
Poverty rate	Satisfaction with "life as a whole"				
School attendance	Relationships with family				
Working hours per week	Job satisfaction				
Perinatal mortality rate	Sex life				
Suicide rate	Perception of distributional justice				
	Class identification				
	Hobbies and club membership				

Source: Galloway (2006) based on Schalock and Verdugo (2002) cited in Schalock (2004), p. 206.

Core QOL domain	Indicators	Descriptors				
Emotional well-being	Contentment	Satisfaction, moods, enjoyment				
	Self-concept	Identity, self-worth, self-esteem				
	Lack of stress	Predictability, control				
Interpersonal relations	Interactions	Social networks, social contacts				
	Relationships	Family, friends, peers				
	Supports	Emotional, physical, financial, feedback				
Material well-being	Financial status	Income, benefits				
	Employment	Work status, work environment				
	Housing	Type of residence, ownership				
Personal development	Education	Achievements, status				
	Personal competence	Cognitive, social, practical				
	Performance	Success, achievement, productivity				
Physical well-being	Health	Functioning, symptoms, fitness, nutrition				
	Activities of daily living	Self-care skills, mobility				
	Leisure	Recreation, hobbies				
Self-determination	Autonomy/personal control	independence				
	Goals and personal values	Desires, expectations				
	Choices	Opportunities, options, preferences				
Social inclusion	Community integration and participation					
	Community roles	Contributor, volunteer				
	Social supports	Support network, services				
Rights	Human	Respect, dignity, equality				
	Legal	Citizenship, access, due process				

Appendix	4.5.	Definitions	based	on	8	domains	and
correspond	ling ind	dicators					

Source: Galloway (2006) based on Schalock and Verdugo (2002) cited in Schalock (2004), p. 206.

### Appendix 5. How the QoL model is applied

### Step 1: Obtained GNH Dataset

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1	в с	D	E F	G 1.1. Life Satisfaction	н	1	J 1.2. Emotional Balance	K L	M 2.1. Self Reported P/health	N O P 2.2. Self Reported M/hr	Q		т	UV	W X	Y
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			27 Married	Satisfied	4	75.39065413	Same as usual	2 37.543	19753 Good	3 59.26647058 No		2 78.5269584 Sometimes		5.74127062 Agree	3 66.84554535	7
		6 Male	40 Married	Satisfied	1 3	73.88753104			19352 Good	3 54.72016104 No		2 87.67507073 Always		2.58045811 Agree	3 64.37508963	2
		4 Female	32 Married	Dissatisfied	1 2		More than usual		11755 Good	3 54.55447276 No		2 76.10982971 Sometimes		1.77711745 Agree	3 71.54674756	20
		S Female	39 Married	Satisfied	4	68.19153739			1842 Very good	4 67.87996959 No		2 58.04990023 Always		4.79498809 Agree	3 52.87282157	6
		4 Female	25 Married	Satisfied	4	71.43475828			1799 Very good	4 62.94222884 No		2 84.88502275 Sometimes		8.23056941 Agree	3 68.95335709	3
	30412 5	5 Female	21 Never marrie		3	46.94752768			16371 Fair	2 35.55995819 No		2 65.36939301 Sometimes		4.88936581 Agree	3 67.78684486	1
	30412 5	5 Female	49 Married	Satisfied	4		More than usual		7764 Good	3 41.52659639 No		2 70.35409077 Always		61.9512314 Agree	3 60.38278236	50
		S Female	37 Married	Satisfied	4	72.05874944			9321 Very good	4 73.75737669 No		2 80.80014324 Always		5.73796533 Agree	3 65.88909053	3
			33 Married	Satisfied	4	60.48754268			1904 Very good	4 70.69301822 No		2 44.22299306 Always		1.18187189 Agree	3 72.86958022	4
76.	30412 8	8 Female	47 Married	Neither satisfied nor dissatisfied	3	41.85509262	Same as usual		2946 Very good	4 77.26552542 No		2 49.38894909 Rarely		2.43172423 Agree	3 73.19578306	3
76.	30412 5	S Female	28 Married	Satisfied	4	67.03780355	More than usual	1 3.46930	6631 Very good	4 63.05557389 No		2 92.07251357 Sometimes	3	47.8272642 Agree	3 63.45997007	10
76.3	30412 3	3 Male	27 Married	Satisfied	4	64.69162408	Less than usual	3 37.3420	9812 Very good	4 67.54601448 No		2 63.35970955 Sometimes		56.7540542 Agree	3 59.70810605	3
76.	30412 4	4 Male	49 Married	Satisfied	4	77.37901753	More than usual		3613 Very good	4 67.59111072 No		2 77.58597917 Sometimes		4.09939979 Agree	3 74.36563185	5
		3 Male	21 Never marrie	d Satisfied	4	72.92603879	Same as usual		6128 Good	3 56.81766504 No		2 55.59096555 Rarely		1.16096794 Agree	3 52.7380617	1
76.3	30412 3	3 Female	46 Married	Very satisfied	5	84.34917279	Same as usual	2 23.6711	3541 Fair	2 30.40332887 No		2 71.70032202 Rarely	2 3	4.35048339 Agree	3 60.30897078	5
76.	30412 6	6 Female	30 Married	Satisfied	4	73.82310049	Same as usual	2 17.1919	I8802 Fair	2 33.1244111 No		2 73.24425104 Sometimes		9.09682233 Agree	3 74.92894941	4
76.	30412 6	6 Female	28 Never marrie	d Satisfied	4	67.26625313	Same as usual	2 22.2995	4874 Good	3 51.83019654 No		2 86.86392431 Sometimes	3 4	3.57289199 Agree	3 51.3233507	2
76.	30412 4	4 Female	45 Married	Satisfied	4	70.33602548	Less than usual	3 25.3834	6002 Good	3 50.11005689 No		2 84.94054611 Sometimes	3 4	2.89874623 Agree	3 62.0431588	( 3
76.3	30412 5	S Female	39 Married	Satisfied	4	67.34412327	Same as usual	2 19.9221	12948 Good	3 41.78209934 No		2 85.54035625 Always	4 3	1.16258614 Agree	3 58.33911803	3
76.	30412 6	6 Female	40 Married	Satisfied	4	75.89340217	Same as usual	2 20.7751	0802 Very good	4 76.8830359 No		2 74.12217267 Always	4	62.290213 Agree	3 69.87931272	5
76.	30412 3	3 Female	24 Married	Satisfied	4	67.26715478	Same as usual	2 20.4081	8322 Fair	2 23.35487887 No		2 62.14768054 Sometimes	3 4	6.67668802 Agree	3 58.22537186	9
76.3	30412 5	5 Male	21 Never marris	d Neither satisfied nor dissatisfied	3	54.0164698	Same as usual	2 16.0167	3824 Very good	4 69.32510653 No		2 57.84039217 Sometimes	3 5	9.40888321 Agree	3 59.2954298	2
76.3	30412 5	5 Female	39 Married	Satisfied	4	67.58350966	Less than usual	3 27.7174	6295 Good	3 43.07869751 No		2 97.44533997 Rarely	2 3	9.60863308 Agree	3 62.79468353	0
76.	30412 6	6 Male	51 Married	Satisfied	4	68.91699368	Same as usual	2 24.5318	17743 Good	3 47.44354677 No		2 73.16360762 Sometimes	3 5	7.45738349 Agree	3 51.45323188	5
76.		S Female	28 Married	Satisfied	4	64.95837969	Same as usual	2 18.1708	1459 Good	3 46.88079729 No		2 80.79282046 Sometimes	3 4	3.21365355 Agree	3 52.63270236	2
76.1	30412 0	6 Male	27 Married	Satisfied	4	79.11853033	Same as usual	2 12.7645	9473 Very good	4 61.99285039 No		2 63.69816648 Sometimes	3 4	3.03902754 Agree	3 52.28625832	888
	30412 5	S Female	38 Married	Satisfied	4	72.36459777			17489 Very good	4 62.11772378 No		2 48.20344316 Always		0.99624128 Agree	3 51.48497559	10
	30412 2	2 Female	39 Married	Very satisfied	5		More than usual		4381 Very good	4 77.99791085 No		2 41.49140586 Always		1.17001968 Agree	3 68.19023358	10
		S Female	33 Married	Neither satisfied nor dissatisfied	3		More than usual		1446 Good	3 41.99847255 Yes		1 21.33711257 Always		2.63353893 Disagree	1 20.35886953	7
		2 Male	53 Married	Satisfied	4		Same as usual		7321 Very good	4 68.8140531 No		2 84.08377934 Always		9.07917762 Agree	3 67.21763575	2
		6 Female	58 Married	Very satisfied	5	96.01748102	Same as usual		12772 Good	3 48.23129382 No		2 80.59895421 Always		70.3359245 Agree	3 61.71603119	2
			31 Married	Very satisfied	5	98.61667873			17679 Good	3 45.67004355 No		2 49.15431201 Rarely		0.49192795 Agree	3 54.40820187	14
		5 Male	81 Married	Satisfied	4	78.59015493			1879 Good	3 56.95284355 No		2 58.69519088 Sometimes		8.82508816 Agree	3 53.94207443	7
		6 Female	38 Divorced	Neither satisfied nor dissatisfied	3		More than usual		2544 Good	3 44.37688442 No		2 88.62409494 Sometimes	3 5	0.99523947 Agree	3 74.77175506	1
		7 Female	22 Never marrie		4		More than usual		0731 Excellent	5 86.33910203 No	_	2 53.65430808 Sometimes	3 4	3.18942468 Agree	3 71.52490728	1
		5 Male	48 Married	Satisfied	4		More than usual		19899 Good	3 59.04505667 No		2 99.34094745 Sometimes	3 4	0.82710385 Agree	3 71.6816723	
	30412 7		47 Married	Satisfied	4		Less than usual		12621 Good	3 40.89022774 No	-	2 58.82071537 Always		69.3539299 Agree	3 64.84432051	2
	30412 5	S Female	38 Married	Satisfied	4		More than usual		S655 Good	3 54.1360381 Yes		1 7.00606341 Sometimes		0.66576777 Agree	3 61.68338987	10
			37 Married	Satisfied	4	79.80981231			I4047 Very good	4 64.55763467 No		2 42.76349304 Sometimes		0.22677033 Agree	3 61.44541962	2
		4 Female	40 Married	Satisfied	4	60.56423961			18077 Fair	2 35.10143529 No		2 90.58810928 Sometimes		5.61792285 Agree	3 62.18453589	12
	30412 2	2 Female	40 Divorced	Dissatisfied	2		More than usual		17259 Fair	2 30.48486604 No		2 81.44344678 Always		1.88912645 Agree	3 50.48515756	1
			37 Married	Satisfied	4		More than usual		18371 Very good	4 70.36160457 No		2 95.51050754 Always		0.91367169 Agree	3 59.62303819	6
76.3	30412 6	6 Female	53 Married	Satisfied	1 4	76.1048274	Same as usual	2 18.0217	7559 Good	3 52.26334514 No		2 48.09721983 Always	4 3	7.50398151 Agree	3 67.71671453	2

# Step 2: Satisfaction score for 15 indicators

### Step 3: Satisfaction score for 5 dimensions

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<u> </u>			1. Psychological		2. Health		3. Community			A Education		
		L.L. Life Satisfaction	1.2. Emotional Belance	2.1. Sell Reported P/health	1.2. Set Reported M/health	3.1. Community Relationship	3.2. Family Relationship	3.3. Cultural Participation	6.1. Scheeling	6.2. knowledge	4.3. Values	5.1. Accessite social services
3 76.30412	5 female	27 Married Saturied	4 78.4668 Serve associal	2 29 Millio Good	3 43.9515 VO	2 58.007 Sametimes	3 SLOT Agree	341 5core 5core 5core 5core 5core 7	1 66.2323 No formal educir 1	8 73436 (Rerate 1	6.37905 Regularly 4 91.6	Contentral Sear
4 76.30412 5 76.30412	6 Male 4 Female	40 Married Satisfied 32 Married Disatafied	20 100 Same as your     2 122.4005 More than usual	2 13 (7179 Good	3 40 100 10	2 45 (343) Aways 2 52,9906 Sometimes	4 611 (41) Agree 3 532 4955 Agree	3 50 2058 2	1 60.809 BachelorsDegre 7 1 58.2356 No formal educy 1	BLORN2 Literate 2 11.6483 Literate 2	50.0043 Occasionalis 3 74.0 29.2781 Ravely 2 29.4	Average food
5 76.30412	5 Female	39 Married Satisfied	4 67.4213 Same as usual	2 17 111 Wery good	4 41,1302 %0	2 86.00299 Allways	4 63 2328 Agree	55.8801 6	1 68.5171 No formal educa 1	11.4361 (Bterate 1	0.1974 Regularly 4 81.4	104 Poor
76.30412	4 Female 5 Female	25 Married Satisfied 21 Never marrie Nether satisfied nor d	4 73.9622 Same as usual to 3 59.6304 Same as usual	2 21 1408 Wery good	4 68,7295 10	2 54,0034 Sometimes	3 52.3522 Agree 3 48.5296 Agree	3 32 6833 3	1 58 912 H5 education (10 5 1 65 1009 H5 education (10 5	57.0109 Literate 2 54.9497 Literate 2	62.403 Angularly 4 87.4 65.6433 Occasionality 3 61.0	Very good
9 76.30412	5 female	49 Married Satisfied	4 66.9727 More than usual	1 8.134912 Good	3 54.2243 No	2 79.4995 Amays	4 77.722 Agree	3 62 148 50	2 73.8305 No-formaleduca 1	4.43329 (Bterate 1	34.7879 Regularly 4 78.3	Con Good
P 76.30412	5 Female	37 Married Satisfied	4 177.9347 Same as usual	2 23 50636 Very good	4 71.036 10	2 77.8582 Always	4 58 5221 Agree	3 68 8340 3	1 57.6324 No formal educa 1	11.6978 (Bterpte 1	\$7.0544 Regularly 4 84	R29 (Con't Know
76.30412	5. Female 8. Female	33 Married Satisfied 40 Married Nother satisfied nor d	4 69.2547 Same as usual 6 3 44.418 Same as usual	2 13.77644 Very good 2 19.82899 Very good	4 45,7999 30	2 59 0634 Always 2 59 0634 Always	4 56.9497 Agree 2 37.6351 Agree	1 53 (644) 3	3 58 5555 No formal education 3 5 58 8551 1.5 education (M - 8	5.09392 Litterate 3 1 b5.8384 Literate 2	6.90955 Regularly 4 28.2 61.9568 Regularly 4 93.6	1215 Average 1664 Poor
76.90412	5 Female	28 Married Satisfied	4 ER 64% More than usual	1 2.322645 Very good	4 23,9005 90	2 26.6024 Sometimes	3 56.339 Agree	3 35 5413 22	1 59.7% H5 education [1 5	50.6409 Literate 2	87.8213 Aarely 2 32.5	5283 Average
76.30412	3 Male 4 Male	27 Married Satisfied 49 Married Satisfied	en 7388 Lewthan usual     en 7388 More than usual	3 33 25824 Very good 1 2.945872 Very good	4 79.9624 No	2 20.9941 Sometimes 2 91.909 Sometimes	3 59 9773 Agree 3 43.0868 Agree	3 73 2791 3	1 50.6528 Primary educate 2 1 40.7429 No formal educate 1	14.534 Literate 2 4.35627 Literate 2	79.7254 Regularly 4 79.8 85.023 Occasionally 3 33.0	155 Very good
76.30412	3 Male	21 Never marrie Satisfied	4 76 7275 Same as usual	2 16 2452 Gred	3 45 2473 50	2 E5 9611 Ravely	2 31.8238 Agree	3 48 7199 1	1 63.9163 HS education [18 5	53.0944 (.Renate 2	55.9798 Regularly 4 82.3	Pogr
76.30412 76.30412	3 Female 6 Female	46 Married Very satisfied 30 Married Satisfied	5 58.8887 Same as usual 4 66.2343 Same as usual	2 22.97577 fair	2 24 7135 No	2 56 3935 Rarely 2 71 2008 Sometimes	2 25.6597 Agree 3 57.8384 Agree	3 56 1191 5	2 64.4233 No formal educa 2 2 63.7118 H5 education (1) 5	5.00001 Ellerate 1 3 56.5125 Literate 2 4	30.3807 Occasionally 3 54.4 41.0338 Ravely 2 36.2	CON Good
76.30412	6 female	28 Never marris Satisfied	4 68 7652 Same assould	2 22.0368 Good	3 44 6337 30	2 40 8324 Sometimes	3 59 277 Agree	3 72 71 19 2	1 45 3365 H5 education 28 5	51.5773 (.Revate 2	94.9215 Repularly 4 77.6	Average
76.30412	4 Female	45 Married Satisfied	6 68.4589 Lexithanusual	3 27.93171 Good	) #6.2022 %o	2 24 9494 Sometimes	3 40.0977 Apres	3 51 6527 3	1 52 198 LS education D1 3	30.9753 Literate 2	78.1133 Regularly 4 86.6	COR Average
76.30412 76.30412	5 Female 6 Female	39 Married Satisfied 60 Married Satisfied	4 00 6258 Serve essevel 6 40 4659 Serve essevel	2 21 0996 Good 2 13 80880 Very good	3 58,9944 %0	2 43 0722 Always	4 52,5452 Agree	5 50 3027 5	1 48.7127 MS education (8 4 1 60.7464 No formal educa 1	36.3309 Literate 2 4 4.82532 Literate 1	83.3345 Aegularly 4 95.7 20.9991 Occasionality 3 63.7	Average
76.30412	) female	24 Married Satisfied	4 65.5727 Same as usual	2 15 20405 Fair	2 24 3497 90	2 74.90 Sometimes	3 45 4731 Agree	3 47.032 9	1 68,7964 MS education D 4	49.0596 Literate 2	53.6303 Regularly 4 92.7	tion dead
4 76.30412 5 76.30412	5 Male 5 Female	21 Never marrie Nether satisfied nor d 39 Married Satisfied	3 57.909 Same as usual     4 60.6099 Lewithan usual	2 IR CO200 Very good 3 NO 80003 Good	4 71.0091 No	2 97,105 Sometimes 2 73,7968 Ravely	3 50.0336 Agree 2 30.0077 Agree	3 77.453 Z	1 52 3014 HS education (1) 5 1 64.418 No formal educa 1	62 1245 Literate 2 5 2006 Effective 1	90.9483 Regularly 6 90.7 7.39968 Regularly 6 88.7	TOP Good
6 76.30412	6 Male	5) Married Satisfied	4 66.5206 Same as usual	2 24.96849 Good	3 49.9137 No	2 54 0669 Sometimes	3 44 2788 Agree	3 50 6822 5	1 56 1719 No formal educa 1	5.8587 (.terpte 2	96.9012 Regularly 4 95.5	Sittle Very poor
76.30412	5 Female	28 Married Satisfied	4 76.0381 Same as usual	2 18 28751 Good	> 43.9008 No	2 53 Mill Sometimes	3 37.5475 Agree	3 58 6843 2		31 209 Literate 2	54,7963 Occasionally 3 54	691 Average
8 76.30412	6 Male 5 Female	27 Married Satisfied 38 Married Satisfied	4 23.8256 Same as usual 4 62.8256 Same as usual	2 19 15202 Very good 2 16 31292 Very good	4 54 3135 10	2 43.5622 Sametimes 2 68.5233 Always	3 47.5233 Agree 4 23.3248 Agree	5 52 6001 800 5 52 8775 50	5 0 MS education (X 4 1 48, 1793 No formal education (X 1	40 261 Literate 2 1 5.47247 Effecte 1	86.0597 Not at all 1 17.3 25.0207 Regularity 4 91.5	D47 Poor
76.90412	2 Female	39 Married Very satisfied	5 82.1982 More than usual	1 0.229243 Very good	4 47.2294 %0	2 63.549 Always	4 72,856 Agree	3 47 0704 30	1 44.7421 HS education (1) 5	50 2253 (.Revate 2	92.434 (Decasionally) 8 56.9	104 Poor
1 76.30412 2 76.30412	5 Female 2 Male	33 Married Nether satisfied nor d 53 Married Satisfied	3 53 7559 More than usual     4 79,4999 Same as usual	1 9.931085 Good 2 18.83488 Wey good	3 47.1492 Fes	1 36 1580 Abayy	4 2405228 Unagree 4 240633 Agree	1 2.71170 Y	1 53.2305 No formal education 1 1 52.064 Primary education 2	4.87333 (Berute 1) 13.7343 (Berute 2)	14, 1973 Regularly 4 197.0 85, 8853 Occasionalis 3 61.7	1511 Average
3 76.30412	6 female	58 Married Very satisfied	5 97.6003 Same as usual	2 17.4127 Good	3 43.0045 %o	2 55 3767 Alexys	4 74 9152 Agree	3 64.7574 2	1 54.4181 No formal educa 1	22.509 (Berate 1 4	6 24913 Regularly 4 92.9	1282 Average
4 76.30412 5 76.30412	4 Female 5 Male	3) Married Very satisfied 8) Married Satisfied	5 86,862 Same as usual 6 66,7473 Same as usual	2 17.08922 Good	3 45.5337 %0	2 21,5268 Aprely 2 25,0288 Sometimes	2 33.8129 Agree 3 44.0627 Agree	3 58 367) 14	1 49.9423 M5 education (k 4 1 49.5208 No formal education (k 4	42.0702 (.terate 2 1 9.64432 (.terate 2	81.7226 Occasionalis 3 55.6 54.886 Regularis 4 91.7	SUS Con't Enow
6 76.30412	6 female	38 Owned Nether satisfied nor d	for B 55 1113 More than usual	1 6 020097 Good	1 40.122 To	2 \$7.9559 Sometimes	) 51.900 Agree	1 17 2252	1 58 9904 1.5 education Dr R	28 (021 ).Recate 2 4	67.2982 Regularly 4 81	CTE (Con't Know
76.30412	7 Female	22 Nevermanie Satisfied	4 66 2361 More than usual	1 1 771109 Excellent	5 91, 3103 No	2 CT BMP Sometimes	3 448.72222 Agree	> 59.6439 1	1 46.0399 HS education [18 5	55.6993 (.Rerate 2	64, 4265 Not at al 1 3, 83	Geod
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# Step 4: QoL model applied

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### Determinants of Cottage and Small Industries Growth in Thimphu Thromde\*

Tashi Norbu\*\*, Tendri Gyeltshen\*\*\*, and Phuntsho Drukpa\*\*\*\*

#### Abstract

The main purpose of this study was to investigate the determinants of the growth of Cottage and Small Industry (CSI) under Thimphu Thromde. We adopted a cross-sectional study design where samples were drawn using proportionate stratified random sampling technique. The analysis is based on the 102 CSI owners who responded to the online survey. Descriptive analysis shows that CSI sector in Thimphu Thromde is growing both in terms of employment generation and capital accumulation. Furthermore, multiple linear regression (MLR) test indicates that management know-how, technology, support CSIs get, and marital status are statistically significant with capital growth while access to finance, government rules and regulations and firm age were statistically significant with employment growth.

<sup>\*</sup> This research was conducted towards fulfilling the partial requirements of Masters of Business Administration (MBA), Royal Institute of Management (RIM) affiliated to the University of Canberra (UC), Australia. The authors would like to extend our heartfelt gratitude to RIM, particularly Karma Pema Loday, Assistant Professor, for guiding us through the entire research process. Our thanks also goes to Department of Cottage and Small Industries under erstwhile Ministry of Economic Affairs (MoEA) for providing us the data (list of CSI owners in Thimphu Thromde).

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**Keywords**: CSI; determinant; Thimphu Thromde; employment; capital; management; growth.

### 1. Introduction

Cottage and Small Industry (CSI) constitute about 95% of the total industry in Bhutan (Ministry of Economic Affairs [MoEA], 2020). Among this, 6,811 firms are registered within the administrative jurisdiction of Thimphu Thromde (National Statistics Bureau [NSB], 2021). The sector is reported to be playing a vital role in Bhutan's socio-economic development like the role played by so called Micro and Small Enterprises (MSEs) in other developing countries. Specifically, Gichuki et al. (2014, p.1) states "MSEs as lifeblood of most economies" while Tarfasa et al. (2016, p.4) regard it as the "springboard for broad-based growth".

In the similar vein, the Royal Government of Bhutan (RGoB) places high priority to the development of CSIs particularly given its potential to enhance income, generate employment and reduce poverty. Data suggest that the officially registered CSIs in Bhutan grew by 44% during the last decade. Among the total registered, the highest (77.3%) are registered under service sector followed by 11.8% in production and manufacturing and 8.2% with contract. As of June 2021, a total of 21,221 firms are reported to be operational in the country (NSB, 2021).

However, considerable increase in the number of CSI firms has corresponding impact neither brought on economic productivity nor generated employment as envisioned. According to Asian Development Bank (2019), the sector contributes only about four percent to the GDP and provides barely 11% of the total employment. This is significantly low when compared to the other developing countries. Although the contribution of MSE sector to overall economy varies by country, recent studies show astounding numbers. In lowincome countries, the sector's contribution exceeds 60% of GDP and 70% of the total employment, whereas in middleincome countries, it encompasses more than 95% of the total employment and approximately 70% of GDP (Abdissa & Fitwi, 2016).

Therefore, the limited growth and performance of CSI sector in Bhutan echoes the necessity for speedy interventions in areas of research and investment. Gebreyesus (2007) reported that MSEs' growth can be severely constrained by multiple factors while Mazumdar & Mazaheri (2003) and Tybout (2000) explicitly termed it as an issue of "missing middle". Thus, bringing measures to accelerate the growth of CSI has become a critical policy interest particularly in developing countries. Against this backdrop, the main goal of this study was to investigate the determinants of the CSI growth in the context of Bhutan, specifically in relation to Thimphu Thromde.

#### 1.1 Research Questions

To achieve the above research objective, some broad research questions will be formulated to guide the course of the study. The questions are reflected below:

- a. What are the socio-demographic and economic characteristics of CSI owners in Thimphu Thromde?
- b. What factors significantly contribute to the growth of CSIs in relation to employment and capital generation in Thimphu Thromde?

#### 1.2 Objectives

- a. To assess the performance of CSI firms under Thimphu Thromde in relation to capital formation and employment generation.
- b. To identify possible determinants of the CSI growth under Thimphu Thromde using employment and capital growth as the dependent variables.

## 2. Literature Review

### 2.1.1 Key concepts and definitions

Seyoum, Aragie, & Tadesse (2016, p.581) states, 'there is no universally agreed definition for Micro and Small Enterprises (MSE)'—termed as Cottage and Small Industry (CSI) in Bhutan. Depending on the country context, some of the commonly used parameters include number of employees, asset value, investment size and sales turnover (Seyoum et al., 2016). Likewise, many earlier studies have used total assets, sales, employment size, profit, capital, and others to measure its growth (Berkhamet et al., 1996; Davidsson & Wiklund, 2000; Holmes & Zimmer, 1994). For the purpose of this study, employment and capital were used as proxy (dependent) variables to measure the growth of CSI. Meanwhile, metrics being used for defining CSI in Bhutan is presented in Table 1.

### 2.1.2 Capital growth

It is determined as the average of current and initial capital. When expressed in annual terms, average return can be referred to as average annual growth rate (AAGR) (Yadergal et al., 2019).

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Current capital-initial capital
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Initial capital

#### 2.1.3 Employment growth

Refers to employees employed both permanently and temporarily and it also includes the family members and the owner working in the enterprise (Yadergal et al., 2019). However, calculation of Average Employment Growth Rate (AEGR) will include only permanent employees for this research purpose.

Current employment–initial employment Initial employment

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Firm size	Employment size	Investment size
Cottage	1-4	< Nu. 1 million
Small	5-19	Nu. 1-10 million
Medium	20-99	Nu. 10-100 million
Large	100 (plus)	> Nu. 100 million

 Table 1. Bhutan's enterprise definitions

Source: Department of Cottage and Small Industries, MoEA, 2019

#### 2.2 Theoretical development

### 2.2.1 Gibrat's Law of Proportionate Effect

The theoretical paradigm of firm growth generally emerges from Gibrat's (1931) Law of Proportionate Effect (LPE). The theory suggests that firm growth has no relationship with size of firm. Also acknowledged as 'stochastic model', this ideal simply postulates firms as a function of random distribution, with fortunate firms exhibiting higher growth rates over the period of time (McPherson, 1996). Contrarily, the main drawback of this theory is it does not recognize the effects of policy interventions on the growth of firm and thus receives tremendous criticisms later.

#### 2.2.2 Coase model

According to Coase (1937), firms' existence is determined by better management of the factors of production, which leads to lower transaction costs. The theory essentially underscores the economic significance boosted by the concept of management structure. It emphasizes that when management costs including supply prices of the factors of production are well managed, firms possibly tend to grow quicker. Coase's view was later complimented by Penrose (1959) when he asserted internal resources as the driving force of firms' growth. The ability of the firms to plan and operate resources efficiently will take firms to new heights.

# 2.2.3 Life Cycle Theory

When Mueller (1972) introduced life cycle theory, conceptual understanding of firm growth gained much clarity. Unlike the previous theorists, Muller's theory postulates that firm growth is determined by age and investment opportunities. This means firm growth follows S-shaped growth pattern, with slow growth at first, then rapid expansion, and finally diminishing its return as the firm matures and reaches optimum growth potential (Mueller, 1972). Although, no connections were drawn, this theory literally echoes the law of increasing and diminishing return; a popular concept of production function being studied in economics.

### 2.2.4 Theory of noisy selection

With completely diverging viewpoint to Gibrat's LPE model, Jovanovic (1982) came up with a new theory known as 'noisy' selection. The theory argues that efficient firms grow and survive while inefficient firms retard and shut down. Efficiency according to this theory is realized as a result of learning from the past and accordingly addressing the problems through better management. In other words, Jovanovic's theory simply predicts that management efficiency improves over time through learning, and as firms grow in size and age, growth rate slows down due to diminishing opportunities arising from learning shocks (McPherson, 1996).

### 2.2.5 Traditional Neo-Classical Theory

The conventional neoclassical economics (O'Farrell & Hitchens, 1988, p.107) proposes that 'declining short-run cost curves and hence savings accruing from lower unit costs incentivize firm growth'. This perspective in a sense emphasizes the importance of capital (fixed factor of production) in firm's growth. Without capital, firm productivity specifically in relation to labour can be compromised. Thus, firm growth is largely reliant on capital expansion (Aguilar & Kimuyu, 2002) in addition to demand growth (Aguilar & Kimuyu 2002; McPherson, 1996).

### 2.3 Empirical evidences

#### 2.3.1 Access to finance

Access to finance is one of the most critical components in business growth. This is based on availability of extensive literature in corporate financing ascertaining the positive relationship between finance and firm growth both at macro and micro level (Demirgüc-Kunt & Maksimovic, 1998; Beck & Demirgüc-Kunt, 2006; Wang, 2016). In contrary to most authors, Emmanuel et al. (2019) reports difficulty in obtaining finance is not a significant determinant of firm performance. However, due to overwhelming evidences reported by most authors, the narrative of the lack of access to finance causing major bottleneck to the growth of MSMEs, particularly in developing countries cannot be ignored. Improving the financial intermediation is hence vital to enhance return on asset, investment in gainful ventures and firm growth (Bond et al., 2015; Bah & Cooper, 2015). Most MSEs are branded as risky ventures due to excessive administrative costs, lack of experience in dealing with financial institutions, and poor credit repayment track record with banks (Abdissa & Fitwi, 2016). Since most banking institutions are reluctant to provide small enterprises with loan and credits, most MSEs are unable to secure collateral requirements. Furthermore, evidence of improved access to finance resulting to increased employment has also been established (Avyagari et al., 2016).

#### 2.3.2 Management know-how

The growth of business firms (large or small) is likely to be influenced by the level of human capital embodied in its owner. The embodiment of human capital would be mirrored in the ability of business owner/proprietor to exhibit both hard and soft skills of people management, resource and finance management, planning, staffing, organizing, directing and controlling in order to achieve business goals (Yadergal et al., 2019). While management capability may be shaped through diverse approaches, education level of the proprietor shows significant correlation to firm sustainability and growth (Bates 1990). This finding also resonates that of Douglass (1976) and numerous other authors who later draw similar conclusions (McPherson, 1996; Gitonga, 2008; Aynadis & Mohammednur, 2014). Fundamentally, the importance of management can be underscored from strategic capability view, which states, 'resources are productive assets the firm owns; capabilities are what the firm can do' (Kohtamaki et al., 2013 as cited in Ulaga & Reinartz, 2011, p.3).

#### 2.3.3 Accounting and record keeping

The role and importance of record keeping largely stems through the prism of planning and decision making. According to Anzola (2002), planning is critical towards achieving organizational efficiency in terms of resource allocation, cost reduction and profit maximization. Several micro and small businesses fail in their first few years of operation (Orobia et al., 2020; Soininen et al., 2012) due to a lack of ability to follow market dynamics, follow up actions, and decision-making flexibility. Urguidy and Barceló (2018) discusses two broad components involing economic and financial management as as record keeping is concerned. While economic far management includes methods of bookkeeping, sales and revenue registration, pricing mechanisms, etc, financial management includes funding sources and invesment. However, studies show that the practice of accounting and record keeping by MSMEs are generally poor. For example, Mariño and Medina (2009) finds 47.8% of the MSMEs do not use financial instuments for decision making while 45% keep business accounting records and only 2% use accounting software.

#### 2.3.4 Innovation and technology

According to Aljuboori et al. (2022, p.5), 'the capacity of a firm to generate new ideas and implementing them into new goods or services that improve the firm's performance is referred to as innovation capability'. Several recent studies reveal, firms with better intellectual capital exhibit higher ability to innovate and increase the performances (Khalique et al., 2018; Wang et al., 2021). Moreover, a previous study by Demirgüç-Kunt and Maksimovic (1998) who investigated over 19,000 firms across 47 developing economies also finds innovative firms achieving considerably greater quantities of output and growth. In contrast, gloom reality is that many MSMEs in developing countries endure deprivation of technological capabilities. Despite the claim of positive innovation-sales growth relationship as evidenced by Demirgüç-Kunt and Maksimovic (1998), the picture is ambiguous with innovation-employment relationship. While product innovations may bring positive impact on employment (Harrison et al., 2005; Calvo, 2006; Benavente & Lauterbach, 2008); process innovations may rather lead to labour-saving practice and thus create negative or no implication on employment generation (Harrison et al., 2005; Benavente & Lauterbach, 2008).

### 2.3.5 Access to market

Marketing has become an indispensable force in modern business management. Wilkie and Moore (2007) argue marketing activity as management task that includes planning the conception of products, their price, promotions and distribution to meet customer demand. However, Porto, Costa, and Watanabe (2017) point out numerous obstacles encountered by small businesses due to management incompetency. For instance, the owners or managers of small enterprises are generally not trained in marketing and hardly use professional marketing techniques (Hankinson ,1991). This results to the loss of opportunity for the managers or owners to operate in the market in terms of obtaining scale and an impact on financial indicators (Porto et al., 2017). Unlike such practices. MSEs' that are able to exercise marketing techniques tend to increase their profitability and hence business growth (Ishengoma & Kappel, 2011).

#### 2.3.6 Infrastructure

One of the basic factors needed to accelerate the pace of economic growth in any country is public infrastructure. The ability of the businesses to thrive and generate profit is essentially reliant on access to business and industrial premises (shops, offices, factories, market stands) and infrastructure facilities, including supply of electricity, water, telecommunication connections, sewage systems, etc (Yadergal et al., 2019). For example, unreliable electricity supply lowers investment in productive capacity of firms (Svensson & Reinikka, 2002) while poor road connectivity (Tybout, 2000), telecommunication (Goedhuys & Sleuwaegen, 2010) water supply (Shibia & Barako, 2017) and sewage system (Aterido et al., 2011) affects business growth significantly. Because of the better infrastructure, MSEs in urban areas tend to grow faster by twofold in comparison to rural setting (McPherson, 1996).

## 3. Research methodology

### 3.1 Study area

The scope of the study was geographically limited to Thimphu Thromde. The location was selected primarily to suit the convenience of the project team who otherwise could not afford travelling to a study area out of Thimphu due to limited time and resources at the disposal. Moreover, being the capital city of Bhutan, Thimphu accommodates a diverse cluster of businesses where several people migrate to the capital city from various Dzongkhags looking for better business and employment opportunities. It is also the most populated urban city in the country.

### 3.2 Data Collection approach

This study adopted a cross-sectional design to collect primary data from the target population. Correctly completed surveys can give standardized data for quantification and statistical analysis, according to Rea and Parker (2005). So, a structured questionnaire was designed in kobotoolbox and deployed online to the respondents. Interview questions were rationally ordered so that respondents did not have trouble responding. Before the main survey, questionnaires were pilot-tested for validity and reliability.

### 3.3 Sampling design and technique

The population (list of CSI owners) was obtained from Department of Cottage and Small Industry, Ministry of

Economic Affairs. According to this record, there are about 6,652 CSIs registered under Thimphu Thromde. These enterprises are grouped into three sectors -Production and manufacturing (338), Services (5829) and contract (485) which have been used as strata for sample selection. Accordingly, a total of 99 samples were selected using stratified proportional random sampling technique. Sample size was determined using Yamane's formula (Yamane, 1967) as stated below.

$$n = \frac{N}{\frac{1 + N(e^2)}{6,652}}$$
$$n = \frac{6,652}{1 + 6,652(0.1 * 0.1)} = 99$$

where; n=sample size, N= target population and e=margin of error (0.1)

#### 3.4 Data analysis method

The first stage of data analysis involves interpretation of sociodemographic characteristics and CSI performance at the descriptive level. In order to estimate the relationship between dependent and independent variables, Pairwise Pearson Correlation Test was used.

A multiple regression analysis (MLR) was conducted to examine the concurrent effect of the predictor variables on the response variable. According to Cohen, West & Aiken (2013) and Wooldridge (2009), MLR is a widely used statistical tool for examining relationships amongst different variables particularly that are interval scaled. In other sense, MLR simply aids in understanding the degree of variance explained by sets of predictors to a response variable.

Before conducting the test, common assumptions of MLR (linearity, independence, multicollinearity, homoscedasticity and multivariate normality) were assessed. The data indicated some degree of non-linearity and heteroscedasticity. Therefore, variable transformations (using log method) were done wherever required and robustness test was executed to ensure homoscedasticity is not violated. Validity and reliability of research instruments were also tested using the values of Cronbach's alpha. The summary of the skewness and kurtosis is presented in Table 1. Statistically, an absolute value greater than 1.96 is significant at p<.05, while values above 2.58 is significant at p<.01 and 3.29 are significant at p<.001. Large samples are expected to return small standard errors and vise-versa with small samples. So, when sample sizes are big, significant values arise from even minor deviations from normality and in small samples it's normal to look for values above 1.96 (within +2 to -2 range). Therefore, the joint p-values<.05 (Table 2) throughout all variables except infrastructure (p>0.05) and government rules and regulations (p>0.05) indicates fairly a symmetric distribution.

Table 2. Summary of skewness and kurtosis statistics for CSI growth variables

Variables	Obs.	Skewness	Kurtosis	Joint			
variables	005.	SKEWHESS	Kui tosis	adj. chi2	Prob.>chi2		
Access to finance	102	0.0326	0.7882	4.68	0.0961		
Management competency	102	0.3514	0.0025	8.79	0.0123		
Access to market	102	0.7517	0.0146	5.81	0.0548		
Infrastructure	102	0.6695	0.0665	3.65	0.1616		
Technology and innovation	102	0.5912	0.0001	13.62	0.0011		
Support CSIs get	102	0.4165	0.0059	7.48	0.0238		
Accounting and record	102	0.5631	0.0009	9.81	0.0074		
keeping							
Government rules and	102	0.4269	0.5649	0.98	0.6121		
regulations							

### 3.5 Description of variables and hypotheses

In order to understand the performance of CSI in Thimphu Thromde, we used capital growth and employment growth as the dependent variables.

#### 3.5.1 Capital growth

According to the Yadergal et al (2019), capital growth is computed as mean of current and initial capital. When expressed in annual terms, average return can be expressed as average annual growth rate (AAGR). Current capital – initial capital

Initial capital

#### 3.5.2 Employment growth

Likewise, employment growth is computed as the mean of current and initial employment. While many researchers include both permanent and temporary employees, this analysis excludes temporary employees as respondents were asked to mention only permanent employees including the owners during the survey.

Current employment – initial employment Initial employment

The growth of a business can be influenced by numerous factors. The independent variables and hypotheses proposed below is intended to enhance our empirical understanding of the determinants for growth of CSIs in Thimphu Thromde. These variables were chosen on the basis of literature review and its relevance to the context of our local business environment. Each variable is briefly described below.

#### **3.6.1** Access to finance

In Bhutan, lack of finance is regarded as one of major impediments for starting, expanding and transforming businesses, particularly with micro and small businesses. The Royal Government of Bhutan (RGoB) take cognizance of this challenge and accordingly designated CSIs as one of the priority flagship programmes during the 12th FYP. Currently, there are five banks, three insurance companies (two direct insurers and one reinsurer), three microfinance institutions, and other financial service providers such as the Credit Information Bureau (CIB), National Pension and Provident Fund (NPPF), Central Registry (CR), Royal Securities Exchange of Bhutan, Ltd (RSEB), Nubri Capital Pvt Ltd and the CSI Bank that provide credit schemes in the country. Report suggest that debt (through informal lending) is by far the predominant source of external financing, despite the barriers associated with debt financing in Bhutan.

<u>Hypothesis 1</u>: There is a significant relationship between access to finance and growth of CSI.

#### 3.6.2 Management competency

According to Case (2009), business administration necessitates significant changes in management, employee attitudes, and values. As a result, managers must be the driving force behind CSI implementation. Managers are responsible for keeping the CSI portfolios up to date on a regular basis (Abuhejleh & Yehia, 2014). Managers are expected to seek out new opportunities and encourage employee engagement in CSI portfolios as the organization's key agents. Although top management sets the CSI's direction and strategy, the initiative's key implementers are middle management and employees. They must work together to make the CSI portfolio a reality (Maon, Lindgreen, & Swaen, 2009).

<u>Hypothesis</u> 2: There is a significant relationship between management competency and CSI growth

#### 3.6.3 Access to market

Conventional economic theories advocate that growth necessitates strategic elasticity and ability to change market focus, thus demanding the introduction of new products or entering the new market. Small businesses generally believe market constraints and helplessness to sell their products and services as one of the most serious hindrances to the starting of businesses and growth. This narrative also holds true in case of Bhutanese CSIs, as suggested from numerous studies undertaken regarding the MSEs sector. The government of Bhutan places high emphasis on improving market access through various initiatives.

<u>Hypothesis 3:</u> There is a significant relationship between market accessibility and CSI growth

### 3.6.4 Infrastructure

RGoB has invested in infrastructure development to promote innovation and nurture startups as well as CSIs with high growth potential in order to foster socioeconomic development and instill an entrepreneurial culture. For infrastructure development, the RGoB has launched a number of projects in different dzongkhags, including the re-modeling of the service centre, renovation of units, and the establishment of a crèche in Thimphu, the establishment of CSI estate in Tsirang, and the establishment of a startup center in Samtse dzongkhag (MoEA, 2021).

<u>Hypothesis 4</u>: There is a significant relationship between infrastructure and CSI growth

### 3.6.5 Technology and innovation

The success of CSIs in today's fast-changing global business climate depends heavily on innovation, creativity, and the use of new technologies. To disseminate information on accessible technologies to startups and CSIs in general, RGoB has created an online CSI Technology Request Database. Such knowledge is essential for startups since they lack access to productenhancing technologies that are relevant to their businesses, resulting in low growth and productivity. The online CSI Technology Request Database is expected to assist startups and CSIs in adopting the relevant and appropriate technology (MoEA, 2021).

<u>Hypothesis 5:</u> There is significant relationship between technology and innovation and CSI growth

### 3.6.6 Support CSIs get

Recognizing the importance of CSIs in achieving development goals, the RGoB has considered appropriate support policies and programs for CSI growth a top priority. RGoB has provided assistance in the areas of human capital development, digital marketing and business management training, infrastructure development (service and startup centers, and the establishment of CSI estate), donor fund mobilization and facilitation, CSI market and CSI product promotion, and so on. The RGoB has also introduced initiatives such as the Bhutan Enterprise Award, Innovation Voucher Scheme, and Industrial Development Grant Scheme to encourage businesses (MoEA, 2021).

<u>Hypothesis 6:</u> There is significant relationship between support CSIs get and their growth

### 3.6.7 Accounting and record keeping

According to Ademola et al. (2012), accounting and recordkeeping are crucial to CSI management. The identification, categorization, storage and protection, reception and transfer, retention, and disposal of documents are all part of the financial statement compilation process. He also noted that records management requires rules, methods, processes, operations, and workers. The knowledge management required for effective business performance is mainly reliant on record keeping. According to Laughlin and Gray (1999), the most essential reasons to build up a strong record management system are to regulate the development and expansion of records, minimize operational costs, enhance efficiency and productivity, and maintain regulatory compliance.

<u>Hypothesis</u> 7: There is a significant relationship between accounting and record keeping and CSI growth

#### 3.6.8 Government rules and regulations

The government has taken steps to encourage and grow CSIs, including bringing on board the Bhutan Agriculture and Food Regulatory Authority (BAFRA) and the Bhutan Standard Bureau (BSB), both of which are responsible for product standardization and certification (MoEA, 2021). Sales tax and customs duty exemption are among the tax breaks available for importing machinery, raw materials, and other CSI necessities.

<u>Hypothesis 8:</u> There is a strong relationship between government rules and regulation and CSI growth.
### 3.7 Econometric model

The study used the following multiple linear regression model.

 $G_i = \beta_o + \sum \beta_i + X_i + \varepsilon_i$ 

Where:

 $G_i$  is the i<sup>th</sup> observations of response variables  $B_o$  is the constant or intercept term  $B_i$  are the coefficients of  $X_i$  variables  $X_i$  is the i<sup>th</sup> observation of explanatory variables  $E_i$  is the error term

Gi is CSI growth (Employment growth and Capital growth), and when the above general model changed into specified variables, the multiple regression equations were expressed as follows:

$$\begin{split} EMP_g &= \beta_0 + \beta_1 \left(FIN\right) + \beta_2 \left(MGTC\right) + \beta_3 \left(MRKA\right) + \beta_4 \left(INFRA\right) + \beta_5 \left(TECH\right) + \beta_6 \\ (SUPT) + \beta_7 \left(ARK\right) + \beta_8 \left(GOVT\right) + \beta_9 \left(Sex\right) + \beta_{10} \left(Age\right) + \beta_{11} \left(Edu\right) + \beta_{12} \left(Mari\right) \\ + \beta_{13} \left(Fage\right) + \beta_{14} \left(Exp\right) + \beta_{15} \left(Cate\right) + \beta_{16} \left(Sour\right) + \beta_{17} \left(Loca\right) + \beta_{18} \left(Sect\right) + \\ \varepsilon & \dots & Equation \ 2 \end{split}$$

Where:

CAP<sub>g</sub> denotes capital growth,  $EMP_g$  is employment growth, AFIN is access to finance; MGTC is management competency; MRKT is Market Access; INFRA is access to infrastructure; TECH is technology & innovation; SUTP is Support MSEs get; ARK is accounting and record keeping; GOVT is Government rules and regulations; Edu is owner's education level; Mari is marital status; Fage is firm age; Exp is experience; Cate is firm category; Sour is source of finance; Loca is location; Sec represents sector,  $\varepsilon$  is the error term of the model.

# 4. Results and discussion

### 4.1 Descriptive results

#### 4.1.1 Demographic characteristics

Table 3 presents the socio-demographic characteristics of CSI owners/managers in Thimphu Thromde. According to the survey, about 61% of businesses are owned and managed by males while 39% are owned by females. This means operating cottage and small businesses are more common among the males than females in Thimphu. The mean age of the respondents was 36 years (SD=7.9) and majority (48.4%) of the them belonged to the age range of 31-40 years. As far as the education level is concerned, majority (52%) reported of having tertiary education while on the other hand only one percent reported with 'no formal education' and 'primary education' respectively.

Characteristics	Frequency	Percent	
~	Male		60.8
Sex	Female	40	39.2
	18-30	25	24.5
	31-40	49	48.4
Age group	41-50	24	23.5
	51-60	3	2.9
	60 plus	1	1.0
	No Formal Education	1	1.0
	Non Formal Education	2	2.1
	Primary School	1	1.0
Education level	Lower Secondary School	2	2.0
	Middle Secondary School	10	9.8
	Higher Secondary School	30	29.4

	Technical Vocational Education & Training	3	2.9
	Tertiary Education	53	52.0
	Never married	22	21.6
	Living together	5	4.9
	Married	70	68.6
Marital status	Divorced	2	2.0
	Separated	2	2.0
	Widow/widower	1	1.0

#### 4.1.2 Business characteristics

#### 4.1.2.1 Ownership and source of start-up capital

As presented in Table 4, majority of businesses are characterized by proprietorship (88.2%) followed by partnership (10.8%) and the least with cooperative (1%). When asked about the source of start-up capital, majority (46%) have started their businesses through own saving followed by support from family/friends (25.5%) and loan from the bank with 20.6% (Table 5). This partly suggests that CSIs have less access to finance in terms of obtaining credit from banks and micro finance institutions. As presented in the Table 6, over 49% of CSIs are operating in the core city area while 43.1% are located in the city outskirts.

Ownership type	Freq.	Percent
Cooperative	90	1.0
Partnership	11	10.8
Sole proprietorship	1	88.2
Total	102	100

Table 4. Frequency and percentage distribution of respondentsby type of ownership

Source of capital	Freq.	Percent	
Own saving	47	46.1	
Loan from bank	21	20.6	
Support from family/friends	26	25.5	
Selling personal assets	1	1.0	
Support from government	1	1.0	
Others	6	5.9	
Total	102	100	

Table 5. Frequency and percentage distribution of respondents by source of start-up capital

Table 6. Frequency and percentage distribution of respondentsby location of business

Location	Freq.	Percent
Core city area	50	49.0
City outskirt	44	43.1
Other	8	7.8
Total	102	100

# 4.1.2.2 Business performance scenario

Table 7 compares the average capital and employment between current and initial start-up by the category of businesses. The analysis shows that both categories of CSIs have grown in terms of capital. The mean start-up capital among the cottage industry is Nu. 721,579 (0.721 million) as compared to Nu. 1,756,172 (1.756 million) for small industry. Similarly, the mean reported current capital for cottage industry is Nu. 1,569,737 (1.569 million) while Nu. 3,347,188 (3.347 million) was reported among small industry. This implies that cottage industry in Thimphu Thromde on average grew by 143.4% in comparison to small industry which grew by 90.6% since the establishment of the businesses. On the other hand, average employment in cottage industry grew from 3 to 4 from start-up

to current while the average number of employees in small industry increased from 5 to 9 respectively.

Category	Capita	ıl (Nu.)	Employmen	nt (Number)
Category	Start-up	Current	Start-up	Current
Cottage	721,579	1,569,737	3.0	4.0
Small	1,756,172	3,347,188	5.0	9.0
Overall	1,370,735	2,685,000	5.0	7.0

Table 7. Mean capital and employment growth by category of business

Table 8 presents the capital and employment growth scenario by sector. An increase of mean capital is observed among all sectors. The highest increase in mean capital is observed in contract sector (164.2%) followed by production and manufacturing (124.6%) and the least with service (85.8%). However, increase in capital has not necessarily generated employment except service sector which added on average 4 employees despite lowest growth rate in terms of capital.

 Table 8. Mean capital and employment growth by sector of the business

 Description

Sector	Capita	1 (Nu.)		yment nber)
	Start-up	Current	Start-up	Current
Production & manufacturing	1,048,125	2,354,375	6.0	6.0
Services	1,511,133	2,807,333	4.0	8.0
Contract	882,727	2,331,818	4.0	4.0
Overall	1,370,735	2,685,00	5.0	7.0

# 4.2 Correlation tests: average capital growth rate as proxy for CSI growth

Management competency, access to market, support CSIs get, accounting and record keeping and age of the firm are correlated at p<0.05 level of significance. Age and owner experience are correlated at p<0.1. All the variables (continuous scaled) are positively correlated indicating their contribution to the growth of CSI. With correlation coefficients of 55.4%, 34.7%, 34.2%; management know-how, market access, and support CSIs get respectively showed relatively a strong association.

As observed in the Table 9, firm age and age of the owner with correlation coefficients of -36.4% and 25.1% respectively were weakly correlated with average capital growth. However, firm category and location were insignificantly negatively correlated. As postulated by Jovanovich model of firm growth, amongst samples of surviving enterprises, younger organizations grow faster. In like manner, the link between average capital growth and firm age is negative in our sample, and the negative sign of the coefficient for firm age was statistically significant at the 5% level, showing that growth slows as the firm gets older.

# 4.3 Correlation tests: average employment growth rate as proxy for CSI growth

Employment growth was significantly (p<0.05) correlated to finance access, management competency, market access, accounting and record keeping, support CSIs get, and firm age. While government rules and regulations were negatively correlated to employment growth, infrastructure and technology were correlated insignificantly (p>0.05) with correlation coefficients of 0.131 and 0.145 respectively. Javanovich's theory of younger firms growing faster than old firms hold valid since firm age was significantly (p<0.05) negatively correlated. The relationship between average employment growth and firm age was also found negative with coefficients of -0.350 statistically significant at 1 percent significant level, indicating that in the sample dataset, growth decreases at increasing rate with age of the firm.

Variables	ACG <sup>1</sup>	Sig	AEG <sup>2</sup>	Sig
Access to finance	0.160	0.108	0.305	0.002
Management competency	0.554	0.000	0.403	0.000
Market access	0.347	0.000	0.320	0.001
Infrastructure	0.094	0.346	0.131	0.190
Technology and innovation	0.086	0.390	0.146	0.144
Support CSIs get	0.342	0.000	0.249	0.012
Accounting and record keeping	0.323	0.001	0.337	0.001
Government rules and regulations	0.133	0.183	-0.080	0.424
Gender dummy	-0.084	0.399	-0.060	0.547
Age dummy	-0.251	0.011	0.000	0.999
Education dummy	-0.083	0.408	0.056	0.574
Marital dummy	0.156	0.117	-0.169	0.090
Firm age dummy	-0.364	0.000	-0.350	0.000
Experience dummy	0.254	0.010	0.142	0.156
Category dummy	-0.048	0.635	-0.066	0.511
Finance source dummy	0.085	0.396	0.027	0.790
Location dummy	-0.009	0.925	0.117	0.241
Sector dummy	0.019	0.851	-0.014	0.886

Table 9. Pearson correlation analysis with capital andemployment growth as proxy for CSI growth

# 4.4 Econometric analysis: Degree of predictor variables explaining the CSI growth in Thimphu Thromde

The MLR test results with the predictor variables are summarized in the Table 10 and 11. The R-squared values for

<sup>&</sup>lt;sup>1</sup> Average Capital Growth

<sup>&</sup>lt;sup>2</sup> Average Employment Growth

average capital growth and average employment growth were 0.424 and 0.381 respectively. This means the variables fitted in two models explained 42.4 percent of variations with regard to average capital growth and 38.1 percent for average employment growth. However, the remaining 57.6% of changes in average capital growth and 61.9% of changes in average employment growth were caused by other factors that are not included in models. Furthermore, the overall significance of two models, as determined by their respective F-Statistics of 3.398 and 2.837, with p-values of 0.000 and 0.001, demonstrated that these models were well fitted at the 1% level of significance (p<0.01).

Access to finance indicated a coefficient estimate of -0.012 and 0.019 with average capital growth and average employment growth respectively. While capital growth had no significant relationship with finance access, average employment growth was statistically significant at 5 percent significance level. This implied that one-unit increase in access to finance has the probability of increasing the employment growth by one percent. On the other hand, the negative coefficient for capital growth implied that respondents' rating on access to finance was relatively poor. However, considering p-value of finance access was statistically significant at 5 percent for average employment growth, the null hypothesis is rejected and the alternate hypothesis is accepted, meaning there is significant relationship between finance access and CSI growth.

At the one percent significance level, respondents' perception on management know-how was statistically significant for average capital growth while it was insignificant (p>0.05) for average employment growth. Similarly, the null hypothesis is rejected and the alternate hypothesis is accepted. Thus, there was significant positive relationship between management competency and CSI growth. The finding is consistent with Aynadis & Mohammednur (2014). Many studies (Bates, 1990; Kohtamäki et al., 2013; Yadergal et al., 2019) have associated higher education as significant proxy for better management know-how, however, this study indicated no significant relationship between education level and management knowhow.

Technology and innovation variable had coefficient estimates of -0.036, and .003. It was statistically significant (p<0.05) for average capital growth in contrast to average employment growth which showed statistically insignificant correlation (p>.05). Since the (p-values) of technology access was statistically significant in relation to average capital growth, the null hypothesis is rejected and alternate hypothesis is accepted, which means there is a significant relationship between technology and CSI growth. Similar conclusions were drawn by Khalique et al (2018); Wang et al (2021) and Harrison et al. (2005).

The support CSIs get had coefficient estimates of 0.045 and - .005. Capital growth was significantly related at 5 percent level while employment was insignificantly correlated (p>0.05). The finding is consistent with Yadergal et.al (2019).

Government rules and regulations was statistically significant at five percent significance level with average employment growth while no predicative capability was evident with average capital growth. Because the P-values of government rules and regulations showed significance at least in relation to employment growth, the null hypothesis is rejected and alternative hypothesis is accepted. This finding is unlike Yadergal et. al (2019) who reported government rules and regulation had no predictive capability for both capital and employment growth.

Accounting and recordkeeping, technology, infrastructure and market access did not show significance (either positively or negatively) to any of the dependent variable. However, infrastructure and market access were statistically insignificant (p>.05) with average capital growth while technology and innovation were statistically insignificant (p>.05) with average employment growth. This implied that CSI owners rated poorly on these variables thus indicating the

requirement for more interventions from the government and other relevant stakeholders so that business environment can improve.

Age of the firm was statistically significant (p<0.05) with coefficient value of -.069 in relation to average employment growth unlike average capital growth which showed significance at 10 percent level with marital status. One-year increase in age of the firm decreased the employment growth by six percent indicating younger firms grew faster as theorized by Javanovich model. Likewise, married owners grew significantly faster than those non-married counterparts with coefficient estimate of 0.046. Meanwhile, gender also had no effect on the growth of CSI unlike Radipere & Dhliwayo (2014) who reported statistically significant difference between the mean value of gender and business performance.

Variables	Coef.	Robust Std. Err.	t-value	p-value	[95% Interval]	Confidence	Sig
Access to finance	-0.012	0.017	-0.72	0.471	-0.046	0.021	
Management competency	0.052	0.016	3.220	0.002	0.020	0.084	***
Market access	0.005	0.017	0.320	0.747	-0.028	0.039	
Infrastructure	-0.002	0.014	-0.15	0.878	-0.029	0.025	
Technology and innovation	-0.036	0.019	-1.93	0.058	-0.074	0.001	*
Support CSIs get	0.045	0.022	2.01	0.048	0.000	0.089	**
Accounting and record keeping	0.011	0.014	0.81	0.420	-0.017	0.039	
Government rules and regulations	-0.001	0.020	-0.07	0.946	-0.041	0.038	
Gender dummy	0.019	0.023	0.83	0.409	-0.027	0.065	
Age dummy	-0.049	0.065	-0.75	0.457	-0.179	0.081	
Education dummy	-0.013	0.022	-0.59	0.560	-0.056	0.030	
Marital dummy	0.046	0.026	1.73	0.087	-0.007	0.098	*
Firm age dummy	-0.050	0.038	-1.31	0.193	-0.125	0.025	
Experience dummy	0.009	0.029	0.29	0.770	-0.050	0.067	
Category dummy	-0.011	0.025	-0.44	0.664	-0.060	0.038	
Finance source dummy	0.012	0.032	0.37	0.712	-0.052	0.076	
Location dummy	-0.024	0.027	-0.88	0.383	-0.078	0.030	
Sector dummy	0.011	0.033	0.34	0.735	-0.055	0.078	
Constant	2.326	0.262	8.89	0.000	1.806	2.846	***
Mean dependent variable	2.314		SD depend	ent variable	0.127	7	
R-squared	0.424		Number of	observation	102		
F-test	3.398		Prob > F		0.000	)	
Akaike crit. (AIC)	-150.297		Bayesian c	rit. (BIC)	-100.	423	

Table 10. Multiple linear regression analysis with capital growth as dependent variable

Note: \*\*\* p<.01, \*\* p<.05, \* p<.1

Coef.	Robust Std. Err.	t-value	p-value	[95% Interval]	Confidence	Sig
.019	.008	2.37	.020	.003	.036	**
.014	.009	1.59	.116	003	.031	
.014	.010	1.34	.185	007	.035	
001	.008	-0.18	.859	018	.015	
.003	.009	0.35	.730	014	.020	
005	.013	-0.39	.697	031	.021	
.010	.009	1.06	.291	009	.028	
031	.014	-2.23	.029	060	003	**
.022	.015	1.43	.158	009	.052	
.025	.040	0.61	.544	056	.105	
.017	.014	1.26	.213	010	.044	
024	.015	-1.57	.121	055	.007	
						*
006	.017	-0.33	.743		.028	
.002	.018	0.11			.037	
.020	.014	1.44			.047	
012	.019	-0.62	.536	050	.026	
2.656	.169	15.71	0.00	2.32	2.992	***
2.734		SD depen	dent variable	0	0.077	
0.381		Number o	f observation	1	.02	
2.837		Prob > F		0	0.001	
-245.112		Bayesian	crit. (BIC)	-	195.237	
	.019 .014 .014 001 .003 005 .010 031 .022 .025 .017 024 069 025 006 .002 .020 012 2.656 2.734 0.381 2.837	Std. Err.           .019         .008           .014         .009           .014         .010          001         .008           .003         .009          005         .013           .010         .009          031         .014           .022         .015           .025         .040           .017         .014          024         .015          069         .036          025         .029          006         .017           .002         .018           .020         .014          012         .019           2.656         .169           2.734         .0.381           2.837	Std. Err.           .019         .008         2.37           .014         .009         1.59           .014         .010         1.34          001         .008         -0.18           .003         .009         0.35          005         .013         -0.39           .010         .009         1.06          031         .014         -2.23           .022         .015         1.43           .025         .040         0.61           .017         .014         1.26          024         .015         -1.57          069         .036         -1.92           .025         .029         -0.87           .006         .017         -0.33           .002         .018         0.11           .020         .014         1.44          012         .019         -0.62           2.656         .169         15.71           2.734         SD dependent         0.381           .0381         Number o         2.837	Std. Err.           .019         .008         2.37         .020           .014         .009         1.59         .116           .014         .010         1.34         .185           .001         .008         -0.18         .859           .003         .009         0.35         .730           .005         .013         -0.39         .697           .010         .009         1.06         .291           .031         .014         -2.23         .029           .022         .015         1.43         .158           .025         .040         0.61         .544           .017         .014         1.26         .213           .024         .015         -1.57         .121          069         .036         -1.92         .058           .025         .029         -0.87         .389           .006         .017         -0.33         .743           .002         .018         0.11         .915           .020         .014         1.44         .154          012         .019         -0.62         .536           2.656         .169	Std. Err.         Interval           .019         .008         2.37         .020         .003           .014         .009         1.59         .116        003           .014         .010         1.34         .185        007          001         .008         -0.18         .859        018           .003         .009         0.35         .730        014          005         .013         -0.39         .697        031           .010         .009         1.06         .291        009          031         .014         -2.23         .029        060           .022         .015         1.43         .158        009           .025         .040         0.61         .544        056           .017         .014         1.26         .213        010          024         .015         -1.57         .121        055          069         .036         -1.92         .058        140          025         .029         -0.87         .389         .083          006         .017         -0.33         .743         .039	Std. Err.         Interval           .019         .008         2.37         .020         .003         .036           .014         .009         1.59         .116        003         .031           .014         .010         1.34         .185        007         .035           .001         .008         -0.18         .859        018         .015           .003         .009         0.35         .730        014         .020           .005         .013         -0.39         .697        031         .021           .010         .009         1.06         .291        009         .028           .031         .014         -2.23         .029        060        003           .022         .015         1.43         .158        009         .052           .025         .040         0.61         .544        056         .105           .017         .014         1.26         .213         .010         .044           .024         .015         -1.57         .121        055         .007           .026         .029         -0.87         .389         .083         .033

Table 11. Multiple linear regression analysis with employment growth as dependent variable

Note: \*\*\* p<.01, \*\* p<.05, \* p<.1

# 5. Conclusion

Using proportionate stratified random sampling technique, an online self-administered survey was undertaken where 102 CSI owners have completed the survey form. The list of CSI owners (sample frame) was obtained from Department of Cottage and Small Industry (DCSI), MoEA, Thimphu who consented as the industry partner for this industry research project. The sample frame included a total of 6,652 formally registered CSI owners under Thimphu Thromde which are generally grouped under three categories namely; production and manufacturing, services and contract.

Descriptive analysis has shown that majority (88.2%) of the CSIs in Thimphu Thromde is registered under sole proprietorship. Likewise, 46% revealed that the source of startup capital for their business was through 'own savings' while 20.6% had taken loan from the financial institutes. Although respondents' perception on access to finance was relatively lower (mean score 2.27 on the scale of 1 to 5), inferential analysis showed statistically significant relationship between access to finance and average employment growth while it was insignificant with average capital growth. This partly shows that finance access is an important predictor for CSI growth, particularly in terms of employment generation.

The finding also revealed that respondents' perception on management know-how is significantly correlated to average capital growth while on other hand the relationship with average employment growth was weak. This means respondents who rated high on management traits such as decision making, communication, leadership had higher capital growth rate but not necessarily on employment growth.

Like many earlier studies have reported, technology and innovation is regarded as significant predictor for business growth by the CSI owners of Thimphu Thromde. In particular, a strong relationship was observed between respondents' perception on technology and average capital growth. In other Journal of Bhutan Studies, Vol.46, Summer 2022

words, CSI owners who rated high on statements related to technology and innovation had better performance in terms of capital accumulation.

There was weak relationship between the support MSEs get from the government, friends, NGOS, their families and relatives. But there was no significant relationship between government rules and regulations and MSEs transformation.

Accounting and record keeping, infrastructure and market access showed no significance to either of the two dependent variables in the model. This implied that respondents' rating on these domains were relatively low indicating the lack of contribution to the overall businesses' growth. These statistics therefore points out an evidence of performance gap in CSI sector against which necessary interventions are required.

# 6. Limitations for the study

This study was limited by time and finance. Thus, inferences drawn on this study is based on sample size with 10% margin of error. Although, many studies have used such sampling proportion, in social science it is usually recommended that 95% confidence interval is met to to draw an inference. Therefore, outcome of study can be more robust, if similar studies can be conducted with adequate sample size. The findings will be even more robust, if findings can be complimented by qualitative study design. Furthermore, critical analysis can also be furnished if studies could be conducted from the lens of performance measures like return on asset (ROA), profitability, and revenue generated by the enterprises.

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# Watching the Words: A Situational Analysis of Selfcensorship in Bhutanese Media

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#### Abstract

Self-censorship in journalism is a global phenomenon. Against the rapidly changing media landscape, experts have posed selfcensorship as a severe threat to the future of journalism. Bhutan is no exception. There are no empirical studies conducted in the country on self-censorship in Bhutanese media. Therefore, the paper attempts to examine the perceptions and practices of self-censorship and its characteristics in the media society, especially after the country transitioned to a constitutional democratic monarchy. It also tries to understand the situation for policy interventions to empower the media in fostering a healthy democratic society. For the study, the paper views self-censorship as the act of journalists limiting or ignoring a story or parts of a story for various reasons and not limited to external threats or the fear of negative repercussions. Sixty-one journalists, including freelancers, were interviewed online during the study. Based on their accounts, there is a common consensus that selfcensorship is an issue in Bhutan. But it is not a result of an oppressive media environment as journalists generally enjoy professional freedom in covering various topics. Instead, it is exercised more like a coping mechanism to professional demands and consequences such as protecting sources and avoiding prosecutions. Moreover, journalists also self-censor as an ethically guided judgement. At the same time, the results suggest that agencies concerned could reduce the instances of self-censorship in the Bhutanese media fraternity through specific interventions.

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**Keywords**: self-censorship, journalism, Bhutanese media, freedom, constitutional democratic monarchy

#### Introduction

Censorship is inherent in the world of journalism. Every step of producing news content - from deciding on headlines to choosing visuals/pictures and audio clips - requires conscious choices and decisions. The practice is as old as journalism as Jürgen Wilke, in his book 'Censorship and Freedom of the Press', writes that censorship as a means of controlling communication has existed since classical antiquity (Wilke, 2013).

Commonly, people interpret censorship in journalism as withholding information or expressions by journalists/newsrooms for various reasons, including editorial policies.

Self-censorship can be defined as further condensed censorship by journalists based on individual rulings. Tony Harcup's 'A Dictionary of Journalism' defines self-censorship as a process whereby journalists avoid reporting specific stories, sources, allegations, arguments, or opinions for fear that doing so might land them in some kind of trouble or difficulty (Harcup, 2014).

For Bhutan, the issue of self-censorship becomes more relevant as a democratic society. Since the country transitioned to a constitutional democratic monarchy in 2008, the role of media has evolved as the fourth pillar of democracy. It has become the chief purveyor of information and viewpoints on public affairs (Journalists' Association of Bhutan, 2014). Media is society's watchdog that people look upon for reliable news and hold their elected leaders accountable. Moreover, Article 7(5) of the Constitution articulates the importance of media for a democratic Bhutan through the freedom it guarantees. But if journalists find themselves in an ethical dilemma of using the information in hand, it could translate to an ill-informed citizenry. In an article for Civil Liberties Union for Europe, Jonathan Day (2021) states that in a democracy, selfcensorship becomes a significant threat and stifles the free flow of information and restricts knowledge and understanding (Day, 2021).

According to Reporters Without Borders, an international nonprofit and non-governmental organisation, the level of selfcensorship continues to be high in the land of "gross national happiness" because many journalists avoid covering sensitive issues for fear of appearing to challenge the social order (Reporters Without Borders, 2021). In the World Press Freedom Index, although Bhutan moved two places up to 65 in 2021 from the previous year, it is still categorised as 'orange' (Reporters Without Borders, 2021). It means media in the country operate in a problematic environment. Moreover, the earlier reports by Reporters Without Borders have repeatedly highlighted self-censorship as a common issue among Bhutanese journalists and described the situation as stifling.

Similarly, a situational assessment by the Journalists' Association of Bhutan in 2014 found that 58 percent of working journalists felt "unsafe" covering critical stories, fearing reprisal (Journalists'Association of Bhutan, 2014, p. 7).

Against the backdrop of these situations, it is imperative to explore further the areas of journalists' self-censorship and possible interventions to address the issue. Moreover, an indepth understanding of the issue will be equally significant to chart interventions as press freedom groups habitually refer to self-censorship as one of the key indicators in their yearly country reports (Skjerdal, 2010, p. 100).

This paper is an effort to understand the pulse of selfcensorship, its perceptions, practices, and characteristics in the Bhutanese media. It also provides specific interventions required from the viewpoint of Bhutanese journalists to resolve the issue.

# Literature Review

#### Censorship – A Historical Perspective

The modern meaning of the word 'censor' is often drawn from the censor office established in ancient Rome, around 443 BC. One of the tasks of the office was to supervise public morality. The Romans believed that the ideal of good governance included moulding people's character. Thus, in his article 'A Short History of Censorship', Leighton Grey writes that censorship was considered an honourable task (Grey, 2021).

Many authors cite the case of Socrates concerning the ancient view of censorship. The Athenian Court sentenced him to drink poison (hemlock) for the crime of worshipping strange gods and the corruption of youth (Shalako, n.d.). However, Socrates chose to die. He did not want to live in a world where his teachings and beliefs were censored and punished.

As free speech became a challenge for the custodians of Christian orthodoxy, the history of censorship can also be viewed through the Church. Leighton Grey writes that to protect the Christian doctrine from dissenting threats, the Church introduced measures such as the Nicene Creed - the defining statement of belief of mainstream Christianity promulgated in 325 AD (Grey, 2021).

The need for censorship heightened in the mid-15th century with the invention of the printing press. Although printing aided the Catholic Church and its mission (Newth, 2010), various authors printed many books that challenged the Church and its beliefs. Countering such, the Roman Catholic Church started issuing an Index of Prohibited Books, a practice that was abolished in 1966. The Church banned the books for their heretical or ideologically dangerous content (Newth, 2010). Earlier studies often portray Galileo as one of the most famous authors the Church banned. The Catholic Church put the physicist/astronomer on trial for believing that the Earth revolves around the sun. On the contrary, the Church orthodoxy stated that the Earth was the centre of the universe and immovable.

After printing, countries started establishing a regular postal service that fostered communication. It immediately became a universally used system to communicate between people and countries. Consequently, the postal service also played a crucial role as an instrument of censorship in many countries, particularly in times of war (Newth, 2010). Governments inspected the mails coming in and leaving the country to stop an enemy from corresponding with the allies. Gradually, governments introduced postal control in the military regimes of many countries mainly to expose military secrets and find out soldiers' confidence.

The advent of the printing machine gave way to more publications of newsletters and newspapers. It further empowered the literate people regarding access to information and its demand. But it also increased the state's concern that unlimited access to information would harm society and public morals, especially during war or other crises (Grey, 2021). Thus, governments continued to inspect the contents and either blocked or changed them and ensured that only the information they deemed befitting to the public was published. In many countries, censorship meant that authorities could shut down uncooperative media outlets, or they could send unruly editors and journalists in exile or even jail or murder them (Bennet & Naim, 2015).

When the internet was born, many people thought and argued that it would ultimately lead to the death of censorship. Supposedly, they believed that technologies would make it difficult for governments to regulate the flow of information. Today, many governments are routing around the liberating effects of the internet. They are redacting critical news and building state media brands. They are also creating more subtle tools to complement the blunt instruments of attacking journalists (Bennet & Naim, 2015). In a nutshell, censorship has followed the free expression of men and women like a shadow throughout history (Grey, 2021).

#### Understanding Self-censorship in Journalism

Ramadan Çipuri, in 'Reasons of Self-censorship Landscape for Journalists', writes that censorship and self-censorship are parts of the same vicious circle (Çipuri, 2015, p. 75). It means that self-censorship is a result of censorship, and the fact there is self-censorship proves that there is an existing outer pressure for censorship. While the word 'self' emphasises individual agency, 'censorship' indicates the presence of an external force that imposes itself on an individual or a collective (Schimpfössl et al., 2020, p. 1-2).

In journalism, self-censorship is an inescapable fact and a widely studied subject. All journalism contains elements of self-censorship of varying degrees brought about through reporting, editing and selecting information and details to include or omit in the final published product (Morris, 2016, p. 8).

Many authors have defined self-censorship based on the social, political, and cultural aspects of a society where individuals practice journalism.

Ricardo Morris defines self-censorship as suppressing or restricting words by an individual rather than an authority to avoid adverse reactions. He states that it is a free-speech restriction that official actors do not carry out. Instead, a person or entity responsible for producing a piece of creative expression applies it to prevent any perceived adverse reaction to that expression (Morris, 2016, p. 8).

Similarly, Jonathan Day defines self-censorship as choosing not to say something that could be important for the public because of the facts or because it could spark a public debate. Although he considers self-censorship a voluntary act, he says journalists often do it out of fear or pressure (Grey, 2021). Self-censorship is a compromise act of a creative personality's internal will to suit the theoretical context of power so that it can always be "correct" with daily politics (Çipuri, 2015, p. 77).

But defining self-censorship may not be essentially forthright. For example, Terje S. Skjerdal, in his article 'Justifying Selfcensorship: A Perspective from Ethiopia' writes that it stretches from a broad understanding, seeing self-censorship as an everyday practice for any journalist anywhere in the world, caused by the inevitable selection and de-selection processes while reporting and editing; to a narrow definition, entailing only those practices journalists perform for the sake of excluding information from publicity due to felt threats by public authorities (Skjerdal, 2010, p. 99).

This brings us to view self-censorship as an ethical facet of the profession; its application as a sound editorial judgement. Today, all journalism articles go through editing or other practical changes and decisions to conform with the newsroom code of ethics drafted with internationally accepted practices. According to Aidan White, this is not self-censorship. When well-trained, free-thinking professionals decide to exercise self-censorship, it becomes the bedrock of journalism at its best (White, 2014).

The act of self-censorship portrays failure or weakness and willpower, and courage. For people to successfully negotiate their social world, they must have the ability to suppress their private feelings and thoughts (Miller, 2006).

#### Self-censorship, Journalism, and Democracy

All democratic societies are built on a foundation of freedom, individual rights, and responsibilities. A free, independent, and vibrant media is essential to all democracies as a mechanism to ascertain that these rights are protected and respected in practice (Journalists'Association of Bhutan, 2014, p. 27). So, when journalists compromise the freedom and vitality by the act of self-censorship by journalists, it puts the institution of democracy at stake. The impact of self-censorship in a democracy can be looked at through the lens of the media's roles. The media are essential in informing and mobilising voters and facilitating two-way communication between citizens and those vying for electoral offices during elections. It allows citizens to get information on various issues from the contenders, which informs their electoral decisions (Walulya & Nassanga, 2020).

In the journal article 'Media in Democratic Bhutan', Tuhina Sarkar writes that unbiased and independent reporting by the media help the public to make well-informed decisions and avoid inconsistency in governance (Sarkar, 2013). But when journalists choose not to share the information deemed necessary for people, they deprive the electorate of an opportunity to make sound judgments.

Free and independent media - a license to express opinions and understandings - is more than exercising the fundamental rights of journalists. According to Jonathan Day, it also helps others enjoy theirs by sparking public debate, increasing the free and open exchange of ideas, and informing people about important issues so they can make good choices when it's time to vote (Day, 2021).

It must be underscored that ethical censorship over topics related to national interests guides self-censorship in any form of government. For instance, it is not unusual or inappropriate for journalists to censor information at a personal level that would risk national security or sovereignty. However, Aidan White argues that sometimes journalism gets swept into the practice of self-censorship by misplaced notions of national interest and patriotism (White, 2014).

#### Why self-censorship?

Many people view self-censorship as both good and bad. As much as it is a deterrent to the free flow of information, it is also a check and balance system that confines a journalist within morality. Balancing the right to speech against other legitimate concerns is a perennial issue (Baltussen & Davis, 2015).

In the same vein, Ramadan Çipuri states that self-censorship appears as something "good" and "bad" according to its effects. For example, it is seen as 'good' when it influences restricting the passions of individuals who are against moral and social norms of society. Still, it is pretty different when it turns into a cloned individual who follows him and warns him that he should not make any ideological mistake (Çipuri, 2015, p. 75).

So, why do journalists choose to restrict expressions or information?

There are different factors as Ramadan Çipuri refers to Professor Randal Marlin's explanations, who classifies selfcensorship into four areas.

First, self-censorship is a survival strategy and a coping mechanism. One common motive is economic, which could vary from the survival of a newspaper or magazine to simply fattening an already healthy revenue. Other reasons might be political or involve the desire to preserve one's life, health, or job (Çipuri, 2015, p. 79).

Then it is viewed through the different levels at which selfcensorship takes place - individual and institution. The decisions are more inclined towards personal beliefs or selfdefence at a personal level. In the latter case, a higher authority within a newspaper rules against publication approved at a lower level (Çipuri, 2015, p. 79).

The reasons for self-censorship can also be concerning the form it takes. For example, to accommodate a publisher's known bias, a reporter might use words such as 'regime' instead of 'government' against their better journalistic judgement (Çipuri, 2015, p. 79).

Aidan White describes fear as one of the main factors influencing self-censorship. When a journalist or editor makes an editorial decision over a story and its contents motivated by the threat of reprisal – whether from the state, the police, the owner, or the advertiser – it is nothing to do with the principles of good journalism (White, 2014).

In the foreword of his book, 'Animal Farm', George Orwell writes that the most disturbing thing related to censorship is that it is voluntary in many cases (Orwell, 1945).

According to Jack Fuller, some of the reasons and justifications for self-censorship within news organisations include the interests of decency, taste, avoidance of unnecessary harm, to keep from whipping up a violent situation, or even at the behest of the government to protect secret operations (Fuller, 1996).

Terje S. Skjerdal also states that self-censorship is essential and justified as a survival means for journalists and media organisations alike. Self-imposed censorship has made it possible to resume journalistic practices in unstable societies, even to the extent that it is essential for survival (Skjerdal, 2010).

# Methodology

As an empirical attempt to determine the perceptions and practice of self-censorship and its characteristics in the Bhutanese media, the paper followed a quantitative approach.

As of 2021, 66 full-time journalists and 16 freelance journalists are registered with the Journalists' Association of Bhutan. The unofficial records, including full-time journalists not registered with the Association, account for a little over 100 journalists. Therefore, the initial target was to cover as many working journalists as possible. However, given the limited time to analyse and produce this paper, the first 61 responses were considered for the study. Keeping the total population of Bhutanese journalists at 100, the sample size of 61 respondents represents a confidence level of 95 percent and an eight percent margin of error.

The survey questionnaire was shared with the respondents online using Google Forms. The questions were broadly classified under the themes of freedom in covering stories, professional priorities, approaches to stories, reasons to avoid stories, and understanding of relevant legal frameworks. Since the study gathered opinions and attitudes, it consisted of 5point Likert scale questions and closed and open-ended questions.

The survey also included two Civil Society Organizations (CSO) and a Council in the media fraternity through open-ended questions. It was to understand their outlook on the issue and action-plan, if any. However, only the two CSOs responded.

As people outside Bhutan have studied self-censorship in journalism widely, the paper reviewed international literature to contextualise the topic and analyse the responses.

#### Results

Of the 61 respondents involved, 60.7 percent (n=37) were male and 39.3 percent (n=34) female. The majority were reporters from the corporate sector (BBS & Kuensel), as the figure below represents.



Figure 1. Organization-wise distribution of respondents

#### A Consensus of Self-censorship

A whopping 86.9 percent (n=53) of the respondents said selfcensorship is an issue in Bhutan, but it was not an issue for the rest (13.1%). Most of them were in the corporate sector, which could be due to the country's nominal size of the private media.



Yes No

Figure 2. Percentage of self-censorship perception

Female journalists viewed self-censorship as a concern slightly more than their counterparts. Despite the fewer female respondents, 91.7 percent (n=22) of them said 'Yes'. On the other hand, 84 percent (n=31) of the total male respondents said self-censorship is a concern, as depicted below.

Gender	Total Respondents	Yes	Percentage (%)
Female	24	22	91.7%
Male	37	31	84%

Table 1. Gender-wise response to self-censorship as an issue

#### Knowing Why



Figure 3. Reasons to avoid stories

As shown in Figure 3, the risk of hurting their relationship with the source was a familiar reason for journalists to evade a story. 44.3 percent (n=27) of the respondents 'sometimes' avoided stories for this reason, while it was 'common' for 13.1 percent (n=8). On the other hand, 14.8 percent (n=9) of the journalists never avoided a story because it could hurt the relationship with the source. 27.9 percent (n=17) said it was 'rare'.

Likewise, if stories conflict with interest, 27.9 percent of the respondents (n=17) said it was common for them not to do such stories. In the same vein, 37.7 percent (n=23) said 'sometimes' they do so, and for 24.6 percent (n=15), it was 'rare'. 9.8 percent (n=6) never avoided stories because of conflicting interests (Figure 3).



Figure 4. Understanding of legal provisions to protect sources

The majority (44.3%) of the journalists surveyed were unsure of a legal mechanism to safeguard their sources. Likewise, 32.8 percent (n=20) said no laws protect the sources, while 23 percent (n=14) reported laws concerning the matter (Figure 4).

As represented in Figure 4, 60.7 percent of the journalists said they sometimes dropped story ideas because the audience/readers might find it too difficult to understand. It happened pretty often among 9.8 percent of the respondents.



Frequency

Figure 5. Reasons to avoid stories

Figure 5 shows that 19.4 percent (n=12) of the respondents said it was common to avoid stories for fear of civil lawsuits or criminal prosecution. On the other hand, 29 percent (n=18) reported 'sometimes', 33.9 percent (n=20) said 'rare', and 17.7 percent (n=11) said 'never'.

Similarly, it was common for 21.3 percent (n=13) of the respondents to avoid stories that could hurt their career, while 26.2 percent (n=16) did it 'sometimes'. Meanwhile, evading stories for fear of risking one's career was 'rare' for 32.8 percent (n=20) of the respondents, and 19.7 (n=12) said 'never'.



Figure 6. Reasons to avoid stories

23 percent (n=14) of the journalists interviewed said it was common for them not to pursue news stories because of their danger of causing damage to one's parent organisation. Likewise, 21.3 percent (n=13) considered the option sometimes. Nevertheless, it was a rare phenomenon for 37.7 percent (23), and 18 percent (n=11) had never done it (Figure 6).

It was also common for 14.3 percent (n=9) of the respondents to avoid doing a story that could adversely affect their

advertisers. 39.7 percent (n=25) reported 'sometimes' while 23.8 percent (n=13) said 'never'. (Figure 6).



#### Freedom Awareness



52.5 percent (n=32) of the respondents said they enjoyed a great deal of freedom, followed by 18 percent (n=11) who enjoyed complete freedom in selecting news stories. Likewise, 47.5 percent (n=29) had a great deal of freedom, and 19.7 percent (had complete freedom in choosing the aspects of a story to focus on, in other words, story angles.

As shown in the following figure, 54.1 percent (n=33) of the interviewees agreed that overall, the media in Bhutan is free to publish revelations concerning political power, while 45.9 (n=28) percent said otherwise. Regarding stories about corruption, 60.7 percent (n=37) reported that the press could cover such stories, while 39.3 percent (n=24) disagreed.



Figure 8. Freedom to publish stories

Journalists are also aware of the legal provisions in the Constitution that protects them. For example, 65.6 percent (n=40) agreed that the Constitution guarantees freedom of information and expression. On the other hand, 23 percent (n=14) were unsure, and 11.5 percent (n=7) said 'No'.

#### Setting Priorities

In terms of priorities, most of the journalists surveyed felt it is vital to report things as they are – facts, provide an analysis of current affairs and support national development.

The figure below explains that although 42.6 percent (n=26) of the respondents said it is important to support government policy, 70.5 percent (n=43) reported that monitoring and scrutinising political leaders are imperative. By the same token, 42.6 percent (n=26) believe it is crucial to be an adversary to the government. Meanwhile, 19.7 percent (12) either felt 'little important' or 'unimportant' to be an adversary to the government.



Grade (Unimportant - Extremely Important)

Figure 9. Priorities while covering stories

Likewise, 44.3 percent (n=27) of the respondents said it is crucial to provide news that attracts vast audience/readers, which means news that matters. However, for 8.2 percent (n=5), it was of little importance.

As represented in Figure 10, generally, the respondents (91.8%) agree it is essential that a journalist or a news organisation always adhere to the code of professional ethics regardless of the situation and context.



Journalists should adhere to code of ethicsOrganization should adhere to code of ethics

Figure 10. Importance of following code of ethics

# Riding on Experience

37.7 percent (n=23) of the respondents believe that experience impacts the practice of self-censorship. And 36 percent (n=22) said it does not, and 21.3 percent (n=13) were unsure.



Figure 11. Impact of experience on self-censorship

A common reason among the respondents who said selfcensorship decreased with experience was the "relationship that develops with the sources over the years", cemented by "trust". Besides, the "confidence" and the "credibility" to tackle more critical stories also grows.

On the other hand, some respondents said as journalists become more experienced, self-censorship is more common because they are "aware of the consequences in covering certain stories" or "sharing particular information."

#### From the media CSOs

Both the CSO respondents agreed that there is some form of self-censorship among Bhutanese journalists. One of them said it is not due to the "oppressive media environment" but mainly because Bhutanese media is "highly sensitive to the vulnerabilities of society" that media professionals end up "unnecessarily" self-censoring issues. They said addressing the problem could be "challenging" without "stringent rules" to protect journalists. At the same time, a respondent reported that self-censorship must be "exercised with caution". "Too much self-censorship, and it will impact the freedom of media. Too little self-censorship and the media will push highly sensitive boundaries, such as national security and communal harmony".

#### Discussions

At the outset, Bhutanese journalists enjoy professional freedom. Most of them agree that they are free to choose the stories to cover and publish news regarding politics and corruption. Nevertheless, self-censorship is an issue among them. Contrary to the situations in some countries, an oppressive environment such as direct political pressures or threats to the lives of journalists does not influence it. Selfcensorship in Bhutan fits with Ricardo Morris' definition as suppressing or restricting words by an individual rather than an authority to avoid adverse reactions (Morris, 2016). It is also voluntary (Orwell, 1945). From the findings, Bhutanese journalists exercising selfcensorship may be understood in the following contexts:

#### Self-censorship to Protect Sources

It can be surmised that self-censorship among journalists exists more as an act of protecting the sources. It is further explained as most respondents feel that a legal mechanism that ensures the safety and confidentiality of the sources does not exist in the country. Today, going by the Law, a Court can ask a journalist to reveal their source(s) or accept the punishment if the journalist decides not to adhere to the Court's order. Therefore, journalists could omit vital information that might put their sources in a tight spot. It aligns with Professor Dale T Miller's view of self-censorship as a portraval of willpower and courage (Miller, 2006). It could also be a means to avoid unnecessary harm (Fuller, 1996). As senior TV news director Glenn Halbrooks mentions in his article 'How Media Censorship Affects the News You See', journalists protect the identities of their anonymous sources due to the fear of retaliation. This is especially important when informants are placed highly in governments or corporations with direct access to critical information (Halbrooks, 2020).

In October 2021, in an alleged case of the Indian government using surveillance software to spy on journalists, activists and political opponents, its Supreme Court emphasised the importance of protecting sources. The Court stated that having no protection might deter sources from assisting journalists in informing people on matters of public interest. This would be an "assault" on the role of media as a "vital public watchdog". Protection of sources is an "important and necessary corollary" of freedom of media (Sinha, 2021).

Such interventions and interpretations, whenever necessary, could provide impetus to the survival of a vibrant media and prompt the exercise of journalistic rights, as mentioned in the Journalists' Association of Bhutan's Code of Ethics. As per the Code, a journalist shall have the right to protect their sources' identities and work documents (notepads and all electronic devices related to newsgathering) (Code of Ethics, 2020).

#### Self-censorship to Avoid Prosecution

Article 7(5) of the Constitution of Bhutan guarantees the freedom of the press. However, some reporters avoid covering stories for fear of civil lawsuits or criminal prosecution. Furthermore, irrespective of the organisation being corporate or private, it is pretty typical for some journalists to avoid stories that could cause damage to the parent company or its advertisers. So, it may be concluded that the motive for self-censorship among Bhutanese journalists also includes the threat of reprisal (White, 2014) and economic (Çipuri, 2015).

Many respondents maintained that access to information should be improved to address self-censorship. This raises the need for a Right to Information (RTI) Act. The process to formulate the Bill started as early as 2008, but it is yet to see the light of day. It gained momentum in 2014 when the National Assembly passed the RTI Bill 2014. However, the National Council (NC) did not deliberate the Bill as the House did not get its presentation from the information and communications ministry (Subba, 2016).

#### Self-censorship as Sound Editorial Judgment

Self-censorship in Bhutanese media can also be an act of sound editorial judgement. The majority of the respondents agree that journalists and news organisations must adhere to professional codes of ethics. According to some respondents, for topics such as monarchy, "as a citizen of the country", it is their "responsibility to protect the privacy or maintain the sanctity of the institution". Others opined that self-censorship should represent "right thought, opinion, and action" for "the greater and long term good of the society". Moreover, journalists or editorial teams censoring details of rape victims or convicted minors is ethically justified and an internationally accepted practice. It means that, at times, editorial policy and censorship made freely by well-trained, free-thinking professionals (White, 2014) guide the decisions to exercise selfcensorship. It is an everyday practice (Skjerdal, 2010), a phenomenon caused by inevitable selection and de-selection processes while reporting and editing (Skjerdal, 2010).

Besides, self-censorship in the Bhutanese context may not necessarily be choosing not to say something that could be important for the public because of the facts or because it could spark a public debate (Day, 2021). This is considering that most respondents reported that it is imperative to report things as they are and provide an analysis of current affairs. It is also important for journalists to scrutinise political leaders and be adversaries to the government. For example, in November 2021, Kuensel - the national newspaper - carried a series of stories taking the finance minister to task for utilising the General Reserve Fund (GRF) to meet the normal capital expenditure of gewogs in Paro Dzongkhag (Dema, 2021). But this was not in line with the guidelines for using GRF. Other news organisations, including private papers, also covered the news stirring discussions among different levels of the society to the extent that it was raised and discussed in the Parliament.

#### Self-censorship at all levels

All journalism contains elements of self-censorship of varying degrees (Morris, 2016) and balancing the right to speech against other legitimate concerns is a perennial issue (Baltussen & Davis, 2015). So, experience may not necessarily determine the level of self-censorship for Bhutanese journalists. According to the respondents, with experience, the "ability" to handle situations and topics and the "confidence" to analyse a subject's sensitivity grow; at the same time, being a "close-knit society" and the ever-present "fear of oppression and criticism" provoke self-censorship even among senior journalists.

#### Limitation

Self-censorship is a concept that is difficult to measure in absolute terms and harder to detect because it is embedded in

us (Chng et al., 2017). Moreover, unlike censorship at an institutional level, self-censorship at an individual level is not visible because the discretion to do so is internalised. Therefore, the findings of this paper may be used to establish a general understanding of self-censorship and the common factors affecting its exercise among Bhutanese journalists, but not necessarily to measure the level of its existence.

# Conclusion

The paper establishes that Bhutanese journalists undergo some form of self-censorship. However, the circumstances under which they apply it are not essentially brought forth by a challenging media environment. There are neither blatant attempts by the government and other agencies to limit media freedom nor covering stories about politics and corruption is life-threatening. With the general freedom to report stories, it could be fair to evaluate journalists practising self-censorship as altruistically motivated – for the benefit of the sources, parent organisation or advertisers, although the fear of prosecution remains one of the causes.

For a democratic Bhutan where citizens expect the media to play a critical role in promoting informed citizenry and accountability, authorities and media organisations must ensure minimal instances of self-censorship. Therefore, through the respondents' accounts, the paper recommends that agencies concerned develop or strengthen legal frameworks to protect journalists' sources, work towards improving media's access to information and the Parliament relook at tabling the Right to Information Bill.

In essence, it may be challenging to monitor or measure selfcensorship in absolute terms when individual rulings govern it. Nonetheless, authorities and media organisations should build a conducive media setting where the practice does not thrive.

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