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'Global segmentation and the liveability response: An Australian regional challenge'

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Abstract

Globalisation research draws attention to spatial identities. Globalizing processes are nevertheless influential in the formation of regional identity. Global changes in the way economic activities are organised and well documented. Understanding and predicting these changes and the interplay with regional identity is not easy. As such improved regional competitiveness and with it increased liveability is a much sought after property of most economies. There does however remain little agreement either on what regional competitiveness or liveability means or on how regions can generate interventions to enhance it. The range of factors influencing the liveability of regions is potentially very wide, with many areas collectively capable of providing for the 'right business environment'.

This paper discusses the concern over the liveability of regions and its relationship with fundamental shifts in 21st century capitalist economies. The drivers behind what is essentially a complex re-focusing onto regions manifest in two main areas; a redefining of the importance and role of regions in the global economy and with this redefinition a focus on the competitiveness between not only regions but also within localities in regions. The paper draws on a recent study of the performance of liveability within the 'Mackay-Whitsunday-Isaac' region in Australia. It discusses the challenges presented by localised responses to the global segmentation of regions and the capacity of such responses to alleviate developmental pressures within communities and to ensure the liveability of regions.

Introduction

The focus on competition between differing regional areas can be viewed as a consequence of globalizing processes. How regional areas respond to this amplification of regional competitiveness is a key focus of this paper.

In an increasingly globalised world it is regions that are the focus for capital accumulation rather than nation-states which are seen as a barrier to the movements of capital. Regions, particularly global ones, concentrate forms of economic capital which makes it possible to draw in the human and social capital which makes growth possible.

Globalisation and the transnational processes on which it is based have resulted in a series of changes to the composition of all forms of capital. Long term processes of capital accumulation have resulted, in a global sense, with differences between regions within each nation state. This process has resulted in a constant series of changes in social (and indeed in natural) relations.

One set of responses by regional organisations is to look at how regions can effectively draw in economic capital. Transnational and national capital has always seen the region as an important site of accumulation, though the distribution of economic capital varies with boom and bust cycles the forms of social and human capital that emerge around it are not the same as in previous periods (ref)..

The investment in forms of social infrastructure has been viewed as traditional responses for the promotion of regional growth. In the past trans-national and national capital has predominately built the social and physical infrastructure of towns with incentives from the state. Higher wages were part of high union density and a sense of local identity and sufficient time outside work to develop social ties. This led to a different balance of economic and social capital than is the case now. There are two important issues here – one is that the state used to train skilled workforces which are harder to find as that form of human capital is comparatively ignored [i.e. left to the market]. In addition, financial incentives the traditional tool for attracting high quality workforces may be operational within some select industry sectors however for the majority of industry groups alternative methods of leverage are more realistic.

This paper will argue that responses to external trends of regional commodification extend to the marketisation of regions as preferred locations for skilled workforces. For some regions that lie at the intersection of high levels of global capital exchange such as major metropolitan locations (Sydney, London and New York) the set of 'natural' attractors for highly skilled workforces would seem obvious. With a high percentage of multinationals able to offer high range incentives these locations operate as 'natural' magnets for attracting highly skilled workers, while drawing heavily on the surrounding regional workforce (McCann, 2007). The question for regional areas is how to respond to these changes in capital, how to clearly articulate positive points of difference with large metropolitan regions, and how to create the attractors necessary to increase human and social capital.

The liveability of regions is one area that has gained considerable traction within the literature in recent times. This paper will examine the processes involved in drawing on this type of endeavour to seek priority expenditures to enhance the attractiveness of a region to prospective high skilled workforces.

This paper focuses on the Mackay, Whitsunday and Isaac region in Queensland, which although not highly urbanized illustrates forms of uneven capital accumulation between the regions urban centre, Mackay and its hinterland. The hinterland includes the Bowen Basin region which is the site of the largest coal reserves in Australia.

The paper is organised into the following sections; a discussion of globalisation and theories of competition, a characterisation of the Mackay-Whitsunday-Isaac region as a global region followed by details of a liveability audit undertaken in August 2008. The paper concludes with a discussion of translation of liveability audits into priority actions given consideration of the equitable redistributive functions of regional governments.

Drivers of liveability assessments

A key driver for undertaking a liveability assessment is that regions around the world are undergoing fundamental change. Cities have been recast as economic clusters and regional hubs which via increased accessibility and high quality services and facilities become both attractive to outside investment and possibly increasingly liveable (ref); Nevertheless, improved regional competitiveness at different levels would appear to be driving increased scrutiny of the determinants of competitive advantage. In the Mackay-Whitsunday-Isaac region the advantage would appear to stems from high levels of natural capital in the form of coal for transnational mining capital and the reef for tourist industry.

The recasting of large urban entities as 'global cities' has implications for regional narratives. Global cities such as New York, London and Tokyo are according to Sassen (1991) the first 'global service centres' in urban history, "crucial nodes for international co-ordination and servicing of economies". Castell (1996) extends the analysis of global cities beyond the functions and attributes of the metropole to focus on the phenomena of networks between not only cities but regions. Florida's (2002) 'creative class' theory links a city's relative economic success or failure to the attraction values embedded in various soft and hard infrastructures to a mobile 'creative class'. The 'creative class' is idealised as highly-educated, well-paid professionals in a variety of industries (technology to entertainment, journalism to finance, high-end manufacturing to the arts), sharing common values of creativity, individuality, difference and merit. Florida proposed that organisations and increasingly municipal regions and cities seeking competitive advantage, need to create spaces/places where the 'creative class' would feel welcomed and accepted. An extension of Florida's thesis is that creative regions would need to transform into centres of innovation that are able to 'attract talent'. Creative regions would need to develop sustainable attributes such as the ability to continually adjust to global change to avoid identification with development stagnation.

Buck et al (2002) argues that the phenomenon of cities and regions acting in competition with each other, for markets, private investment, public sector funding and residents, for example (Gordon;

1999a) is not new, but has become more intense. An increase in the internationalisation of trade and a shift away from mass production of goods to value-added service activities particularly in first world nations, require high quality environments and skilled labour, and sympathetic pro-competitive governance. Although not clearly defined a pro-competitive government could be translated as a low taxing/ high subsidy government.

While globally competitive regions are characterised then as places with above average infrastructures which provide the necessary stimulating milieu for knowledge workers and creativity enterprise generating the production of new service commodities. It is 'global practice' as evidenced through the knowledge monopolies (global banking and finance institutions) which trade through cities and fortunate regional clusters that create the necessary figurations conducive to dominant enterprise (Taylor 2004).

Critics however question the fundamental links in Florida's creative class theory citing an American bias that may not be applicable to global economic and regional trends, for example the recent China experience. Also questioned are the validity and the strength of the link between 'creative' inner cities and job/enterprise creation which often occurs in the fringes of these cities (Malanga 2005) and in peri-urban developments. In short, the metropolis is sustained by and draws substantially from the regions.

Regional development within capitalist societies is marked by uneven rates of development and through cyclic boom-bust periods (Catley, 1996). O'Connor (2005) argues for a new perspective on global regions to look beyond a political economy emphasis on power, dominance and control measured by commercial service activity and investigate other ways that regions are linked (closer to Florida's creative class theory). Of growing importance are the buying and selling of services (such as international higher education) as a part of world trade and therefore global regional linkages.

The debate however is focused more on the attributes of a region that are attractive to individuals as well as businesses, for example: transport, entertainment, conspicuous consumption, specialized personal services, tertiary education, entertainment, culture, arts, and the ancillary activities that cater for them. In a sense, there is a merging between the attributes a region offers for individuals' lifestyles (the region's liveability) and those for businesses.

Easton (2007) identifies globalising processes by the principles of economic integration, the falling cost of distance, economies of scale, influence on cultural differences, and a reduction in policy discretion of nation-states.

While multinational firms are able to coordinate global activities, and integrate global supply chains with greater inter-dependencies and more sustained long distance trading relationships (McCann, 2007). Leamer, 2007, argues that the 'world is not shrinking but economic activity is dispersing'. As McCann (2007) points out the 'spatial transaction costs for routine, standardised and non-knowledge intense activities have fallen whereas spatial transaction costs for non-routine, non-standardised and knowledge intensive activities have risen'.

It is acknowledged that virtually any business in the service sector can become global. However as Urwin (2006) contend business activity is more likely to originate from within a region and is not necessarily imported to it. These regional clusters become in some ways self perpetuating entities that in a transformative process “perform” rather than compete. Understanding then, the key measures that enable performance rather than simply competition could be more important to understanding cluster growth and resilience.

Porter (1990) argues that successful companies were attracted to cities which were able to offer not just the 'traditional' opportunities within the city region, such as resource availability and labour costsbut more socio-spatial phenomena such as quality of life and lives. State policy options now looks at building upon the advantages of each region, building upon business-related infrastructure, ensuring regions are an attractive place for people to work in, and for businesses to operate from, eliminating obstacles to the productivity of growth. With an ever-increasing internationalisation of production, fostering competitiveness is an imperative for governments on a national and regional level.

Although global cities attract considerable attention, Selman (1999) has argued that the “critical scale of effectiveness” (p. 168) is the regional scale. McDonald (1996) reflecting on the most effective boundary of a sustainable system suggests the region scale can fulfil this role. Regional scale management and analysis has gained in dominance because of a fundamental shift to incorporate economic, environmental and social equity. According to Calthorpe (2000, p. 15)

> *“the economic building blocks of the global economy are regions—not nations, states, or cities. It’s equally clear that many of our environmental challenges are regional in scope . . . our basic infrastructure investments also are regional in scale and scope. Issues of economic equity, social integration, and race all now play themselves out in a regional geography . . . our sense of place is increasingly grounded in the region”.*

Responses to globalising forces by localities vary, one approach ‘glocalisation’ is premised on local actors mobilising their strengths and resources to re-characterise the dialogue between global entities and localities to seek reciprocal advantage from global flows of capital and resources (Wilson, 2009). Glocalisation differs from localism in that instead of retreating to forms of protectionism and disengagement, glocalisation encourages some forms of strategic engagement with global actors. Bressi (2003), Cavaye (2005), Amin and Thrift (1994) draw attention to globalising processes that involve an increase in horizontal networks that involve dense ‘institutional’ relationships that can be tangible at individual, group and broader regional levels that are complicate in the generation productive specialisations that form areas of advantage. Following from Porters claim that future global competitive advantages are distilled in local knowledge, relationships and motivations (Porter, 1998, 77-90). Wilson argues that local capacity that is connected and understands competitive global flows irrespective of spatial order and/or political jurisdictions (regional, national, international) (Wilson, 2009:24).

New regionalism has been presented as an essential organising tool for gaining competitive advantage (ref). New regionalism has been characterised as giving emphasis to governance over government, shifting from a structured to a process driven approach, the opening of traditional boundaries and demarcations, working in collaboration as opposed to coordination, instilling trust instead of focusing on accountability, and driving empowerment of others not concentrating on power building. Critics of new regionalism add that old forms of hierarchical power and influence still permeate through to regions and to a degree dictate the economic and business space that regions are trying to inhabit. A question that is fundamental is the sustainability of any development beyond shifting trade trends and managerialist motifs of new world orders.

Is it more that the patterns of capital accumulation have changed along with the withdrawal of the state from providing human and social capital, coupled with a decline of trade union involvement in communities, consequently shifting the focus from workplaces or towns. Is new regionalism merely a local effect of current and past transnational practices?

At a regional level players from local business and non-government organisations can be seen to resist transnationals in a different form – seeking both to profit from mining economic capital but also paying higher prices without a lot of scope to keep benefits of economic development in the region. So what is needed is a long term view – how to turn natural capital (an asset but not sustainable) not just into economic capital (which leaves the region, is subject to boom.bust cycles) but into social capital or other forms of capital that are sustainable. In this context Florida's 'knowledge industry' makes sense as future vision for the Mackay-Whitsunday-Isaac region not simply as an explanation of past transnational practice.

***Theories of competition* (competitiveness)**

Competitiveness within economic development discourse has been a dominant mantra (Begg, 1999) however, Krugman (1996a and 1996b) suggests that the promotion of competitiveness is an attribute of companies not of cities, regions, countries or continents. McDowell (2004:146) observes that 'competitiveness' that sits within the language of neo-liberalism and pursues the efficient allocation of resources does little to deliver resources outside of the market, that is the goods and services exchanged voluntarily within communities and families, or even at a regional level.

Porter (1996 and 1998) on the other hand disagrees and suggests that more attention should be given to the role of competitiveness in regional development theory. Regional competitiveness for Porter (1990) has been characterised as the diamond of competitive advantage; consisting of factor conditions, demand conditions, related and supporting industries and firm strategy and rivalry. Begg (1999) conceptualises competitiveness as a maze that includes factors such as the standard of living, employment rate, productivity, macro influences, company characteristics, the business environment, and capacity for innovation and learning.

Human capital theory can be seen to extend the competition thesis by arguing that it is people who are the driving force of economic, social and regional growth over basic forms of capital (Reich, 1992; Saxenian, 1994). The key response for regional growth lies in attracting and retaining a critical concentration of highly educated knowledge workers within a region to drive innovation and to increase competitive advantages (Yigitcanlar, Baum & Horton 2007).

Human capital accumulation embodied in knowledge workers is therefore essential for sustained growth and economic development of a region. Policy makers are challenged to attract and retain knowledge workers in their regions by observance of this ‘orthodoxy’. The literature indicates in simple terms that one of the most effective ways to attract knowledge workers and promote economic development is the creation of appropriate amenities (Mathur and Stein, 2005, p. 265). A possible list of amenities for knowledge worker could be:a retail-rich environment;the spectacle of professional sport/music;quality childcare services;private school education for the household children;access to private health care facilities;static and performance art spaces;‘’authentic’’ and ‘’historical’’ places;affordable housing, particular for PhD students, post-docs; andan affluent retirement.

Critics such as Petrella (1995) point out that there is a risk that an excessive pursuit of competitive advantage will unduly disadvantage the ‘vulnerable’ and lead to a neglect of other policy aims such as equity and sustainability.

Buck et al (2002) similarly considers competitiveness and social cohesion in the context of global city-regions arguing that consideration needs to be given to a ‘developmental triangle' of competitiveness, cohesion and governance.

National competitiveness and an assumed prosperity have been linked to forms of social inclusion, with counter claims that social exclusion erodes productive cohesion. A component of cohesion, social capital refers to the resources which are obtained through membership of social networks and which in turn affect competitiveness along with core elements of human capital. Governance incorporates how governments respond to development issues. A range of programmes seeking to alleviate social exclusion which subsequently *or coincidently* 'act as a drag on competitiveness' have entered the public sphere in most western countries. Regional level management is increasingly arranged with an aspiration to promote the interests of competitiveness and cohesion, and sometimes achieved through a set of interests and agencies not traditionally involved in the public sector such as community and business representatives.

Social equity issues related to polarized workforces with regions showing high levels of spatial and ethnic segregation have been highlighted (Brunn et al (eds) (2003) and Sachs-Jeantet (UNESCO publication, 2005). Jarvis (2007) challenges the popular economic discourse of regional competitiveness based on understandings of economic efficiencies and governance to expand narrow definitions of urban competitiveness to include concepts such as social wellbeing and environmental stewardship. These arguments are further expressed by Lawn and Clarke (2008) who question the veracity of relying on conventional macroeconomic indicators such as GDP with the creation of public policy for the sustainable welfare of regions.

It is interesting to note that the factors that support the “quality of life” a region offers, often called its “liveability” also support it’s quality or performance as a “place to work” and a “place to transact business”, its “work” and “business” performance rating. This “mutual” support is even more pronounced in relation to the global regions concept, because the service industries and businesses driving this concept are heavily dependent on skilled and educated business owners and workers who seek a high quality life-style and work environment, both of which are closely integrated. Hence, from a global regions perspective, a region's liveability characteristics could be considered its performance attributes.

Mackay Whitsunday and Isaac as a global region

The Mackay-Whitsunday-Isaac (MWI) region located on the north-east coast of Australia, is characterised by geographic diversity with coastal developments encompassing urban centres, tourism, sugar cane, horticulture and aquaculture sectors on the eastern perimeter and a substantial coal mining and beef industry in the western hinterland. The region has been characterised by significant economic growth driven by the mining sector with the Gross Regional Product (GRP) in 2005/06 of the Mackay Whitsunday Region triple the rate of the State of Queensland (42.5% compared to 13.9%) to $13.3 billion (ref). Global demand for commodities produced in the region are significant drivers of growth as increasingly large, multi-national companies are basing themselves in the region, increasing demand in support sectors. Key industries in the region are transport and storage ($701.6 million), property and business services ($623.1 million) and agriculture, forestry and fishing ($572.8 million) (AEC, 2007).

The region's attractiveness as a tree and sea change destination and considerable employment opportunities are driving significant growth in population particularly in the mining industry. An abundance of natural resources, in particular good quality agricultural land, energy resources, and naturally occurring tourism attractions provide significant opportunity for further development and value adding to facilitate economic growth. The region has an average weekly income range above the state average, however it is not evenly distributed throughout the region. Income and wealth tend to map the locations of the mining and support. Cost of living increases in particular housing costs have risen correspondingly with substantive resource industry growth.

According to AEC (2007) the region experiences significant labour and skills shortages in a number of industries and occupations. Industry dependency is a concern with the mining sector contributing over half of the region's total GRP ($8.1 billion) illustrating uneven capital development. Infrastructure capacity and access is seen as a growth restraint. In relation to global connectivity the region has a relatively low level of inter-industry connectivity and coordination of social capital (ref.). Collaboration and cohesiveness of activities and facilities within and between industries to increase economies of scale, as well as enable more targeted marketing, production and logistics activities have been suggested.

The liveability response

Regional based entities respond to changing circumstances in a multitude of ways. Some entities adopt a 'see no evil, hear no evil' approach and either retreat from increased regional exposure in a voluntary isolationist way or retreat involuntarily through negligence and ineptitude. Other regional entities seek an evidenced based approach which until recently drew more heavily on economic measures of performance such as gross domestic product values.

The challenges facing cities and regions in a globalised world undermine previous assumptions and taken-for-granted ways of life, particularly in rural areas. Where once strong unions and farm lobbies meant more vulnerable members of the community whose livelihood dependent on commodities on a world market or whose work was 'dirty and dangerous' could expect protection or support from the state. With the rise of neo-liberal economic policies which have seen state's capacity to raise funds via tax slashed. Local business farmers, state government's regional offices and other non-government organisations have sought to challenge the notion of development as simple being about profit maximisation for a particular section of economic capital while the community which provides the social, human and ecological capital bear the costs. This have involved moving beyond simplistic GDP measures toward 'quality of life' or well-being measure which if tied to a region are encapsulated in the notion of 'liveability'.

Historically measuring the economic outputs of a 'rocks and crops' economy was fairly straightforward though moves to a service economy or, more recently, a knowledge economy have presented challenges to assessing the economic value of such activities. In conditions of relative scarcity it is fair to assume that an increase in GDP per capita will result in an overall increase in the liveability of the population. In advanced capitalist countries, where conditions of scarcity do not apply, then intuitively it would seem that past a certain point there are diminishing marginal returns to the performance of liveability (Frey and Stutzer 2002, Lawn and Clarke 2008).

The traditional measure for looking at the liveability of a region has been the use of GDP per capita. This metric was developed around the World Wars and attempted to measure the amount of goods produced within a set of national boundaries in a given period. Like any measurement it is a construct which simplifies reality and is based on a consensus, now almost universal, about what will be included and what will not. Income produced overseas is ignored as are large sections of the 'shadow' economy (e.g. illegal drugs) or areas of work excluded from market relations (e.g. unpaid domestic labour). Notwithstanding anomalies (for e.g. such a metric treats the recent Mackay flood not as a costly billion dollar disaster but as a boost in economic growth) GDP per capita has served as a useful metric since it is an easy to interpret, single number, with international agreement on its strengths and weaknesses.

Measuring liveability performance

Liveability is constituted as part of a growing emphasis by decision makers and the corporate sector on the 'social' aspects of development and the need to pay attention to these impacts not merely as side-effects of economic development but as important drivers to make economic growth sustainable. Liveability incorporates both livelihood and ecological sustainability (Evans, 2002). While GDP remains an essential measure there has been an increase in the use of more multi-faceted indices to include a more social focus e.g. the human development index developed by the UN which looks at, life expectancy, adult literacy, as well as GDP; other indices focus on gender empowerment or social inequality. Liveability connects objective and subjective measures of a population's well-being or quality of life with a specific geographic location for the purpose of characterising the city or regions 'triple bottom line'.

Overall, there has been considerable development of indicators of progress and well-being in Australia within the government, non-government and university sectors. In general, these developments have referenced the international developments and have adopted a triple bottom line approach. The measurement frameworks tend to be based on the three key domains of social, economic and environmental with the additional domains of culture and governance/democracy also being included. The recent trend is for some community input into the selection of key indicators.

There are several important drivers which are influencing the Australian developments and that is the general realisation within all levels of government that in order to inform strategic planning and developing some measure of policy outcomes better ‘evidence based’ indicators are required.

What distinguishes 'liveability' from the concepts of wellbeing and quality of life which apply to populations is that liveability is clearly related to place. It has a very clear geographic element. The concept of liveability in many ways tries to capture the intentions of social wellbeing and quality of life and ground it in a particular location. Within this study the concept of liveability is linked to both social infrastructure which are aligned to various jurisdictions and also to intangible but essential elements which relate to the individual quality of life and well-being of citizens.

While the concept of liveability remains a compilation of objective and subjective assessments, to avoid a lengthy discussion of the pros and cons of each item or each index, the primary objective of most liveability assessments is to make the region more competitive, more attractive for retention of skilled employees and a measure to illustrate good governance. The metrics then must attempt to accommodate the need for marketing the region, improving local services and governance, both for the relatively homogeneous urban locations and also across diverse rural and regional locations.

The concept of liveability has been described by Veenhoven (1996) as the degree to which a nation or communities ‘provisions and requirements fit with the needs and capacities of its citizens’ (1996:7). The concept has more recently gained a resonance with social commentators and government spokespeople. Liveability would appear to be an inclusive concept that entails physiological (food, shelter etc) as well as psychological (sense of security, trust, identity) needs.

Two approaches have been discussed by Veenhoven (1996), the first being measurement by social ‘input indicators’ which are measures of the living conditions that are expected to match an individuals needs such as wealth, political freedom, equality, access to education. The two main problems with this approach is the implicit assumption of an individual needs and the assumed correlation between a particular societal condition and better liveability. Consequently another approach has been put forward which looks at ‘output indicators’ such as indicators of physical and mental health, overall satisfaction and happiness. With these indicators it is assumed that good health and a positive outlook on life are indicators of increased liveability. Within this conceptualisation people are to a certain degree ascribed a passive role in that they are not necessarily seen as autonomous actors managing their living conditions, but instead responding to the conditions provided by a given society.

The construct of liveability adopted in the research drew upon Berger-Schmitt and Noll (2000:28) conceptualisation of social quality; conceived as 'an effort to integrate the ideas of social cohesion, social exclusion and human development under a common policy perspective'. Moreover, prosperity and liveability do not necessarily parallel to each other. For illustrations,

Headey and Wearing (1992), Diener and Biswas-Diener (2002) found that economic variables, such as income and employment status, appear to have little effect on the wellbeing of individuals. By contrast, others found that 'inequality of income can severely affect well-being' (Hamilton, 2003:145). Yet, others find that there is a weak relationship between a country's economic fortunes (such as its GDP) and the general happiness of its population over time (Amárach Consulting, 2002; Lawn and Clarke 2008).

Economic, social, environmental and human capital

The liveability construct constituted for this study was premised on the notion of four capitals; economic, social, environmental and human. In economic terms a functional definition of capital in general is: "a stock that yields a flow of valuable goods or services into the future". Here, economic capital is the measurable factors that impact on an individual, household and communities state of liveability.

Social capital is considered to be a key ingredient for the social cohesion of a society and a major factor in the wealth of a nation and a determinant of economic growth along with human, physical and natural capital (Putnam, 1993; Knack and Keefer 1997; and Shleifer 1997). Numerous studies have given indication that a relative improvement in social capital can impact upon other areas of community well-being such as education, health, rates of crime and the environment (Coleman 1988; O'Connor 1998; Rossing Feldman/Assaf 1999). Items which occur repeatedly in surveys of 'liveability' include health which is strongly correlated with social capital as are security, inclusion, autonomy and solidarity.

The OECD defines human capital as 'the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being' (Keeley, 2007). The critical nature of human capital is reinforced in the OECD report (2005) when it was described as 'the fundamental building block for growth strategies in the knowledge-based economy'[1]

Definitions of human capital include the knowledge and skills embodied in people and their ability to be economically productive (ref). Human capital includes a focus on education and training to build capability and on health to increase the opportunity for productive work. An important aspect of human capital is the impact on people through all life stages. Human capital differs substantially from social capital in that ownership of human capital lie with the individual whereas social capital is between people, social networks and communities.

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[1] OECD (2005) Micro Policies for Growth and Productivity: Final Report, p.9

Environment (or natural capital) can be viewed as an extension of the economic notion of capital (manufactured means of production) to the goods and services of the environment both natural and built. Theoretically natural capital can be viewed as the stock of natural ecosystems that yields a flow of valuable ecosystem goods or services into the future. The environment domain is inclusive of the perceptions of the state of the natural environment but also includes the environmental factors of the built environment.

Rather than being mutually exclusive, the four constructs of economic, environment, social and human capital are highly interrelated (Nahapiet and Ghoshal, 1997). Cullen & Whiteford (2001). In exploring links between these capitals help to understanding of the non-economic aspects of community development and aspects of liveability.

The Mackay Whitsunday Isaac liveability audit

The Mackay-Whitsunday-Isaac (MWI) liveability audit was undertaken as an opportunity to understand the liveability performance of the region and to align investment strategies at the regional level to foster growth in the region. The study assumed that there is a link between regional government investment and the liveability of a region.

The liveability audit involved creation of a composite index of liveability drawn from existing census style objective data and subjective measurements of liveability from a Computer Assisted Telephone Interviewing (CATI) survey in August 2008. The CATI survey sought the perceptions of individuals living within the study region (MWI n=900) and in South East Queensland (SEQ—Brisbane, Gold Coast and Sunshine Coast n=300). This allowed for a representation of views from outside of the region to be compared with those within.

The liveability matrix

The indicators of liveability were selected on the basis of underpinning the key constructs that formed an understanding of a region's sustainability. The matrix approach combined four dimensions of liveability: economic, environment, human and social capital (Table 1). Each dimension consisted of five sub-dimensions and each sub-dimension contained one or more indicators of liveability.

Table 1 Liveability dimensions

Economic capital	Environment*	Human capital	Social capital
Housing	Natural environment	Education	Community integration
Infrastructure services	Planning and development	Employment	Community network
Transport	Regional image	Demographic	Entertainment
Industry	Recreation infrastructure	Health	Aesthetic value
Income	Climate	Trade services	Personal wellbeing

**Environment includes natural capital and built environment*

In summary form the average current liveability of the MWI region is 54.53% and the expectation is 69.76% presenting a liveability gap according to SEQ and MWI respondents of 17.45% across all dimensions. This could be interpreted as indicating a need across all dimensions of a 17.45% improvement to meet expectations. Based on the analysis the priority areas for the improvement of liveability across the MWI region in broad dimension terms are the social and human capital areas rather than environmental and economic capital areas. Overall the liveability gap for all respondents for the social capital dimension is 20.31% and the human capital dimension is 18.57% compared to the environment dimension with 16.06% and the economic dimension at 13.88%.

While overall the liveability gap is consistently higher from the SEQ respondents, the MWI regions present more significant differentiation between the dimensions of liveability. In each of the MWI areas there is one dimension which stands out; interestingly this is a different dimension for each region. In the Whitsunday region there is a liveability gap of 21.16% within the social dimension, whereas in Mackay the liveability gap is higher with 23.29% within the human capital dimension. In the Isaac region the highest liveability gap is 18.90% in the environment dimension (Table 2).

Table 2 Liveability gap (current – expectation) across dimension Weighted Average Liveability Gap (%)

	Economic	Environmental	Human	Social
Whitsunday	-7.80	-9.85	-14.68	-21.16
Mackay	-10.89	-14.76	-23.29	-15.59
Isaac	-11.12	-18.90	-13.76	-13.71
MWI (Ave.)	-9.94	-14.50	-17.25	-16.82
SEQ (Ave.)	-20.87	-21.73	-21.50	-23.35
All regions (Ave.)	-13.88	-16.06	-18.57	-20.31

The key interest for this paper is the identification within each dimension of priority factors that can be association with the allocation of resources to enhance liveability.

Economic dimension	Human capital dimension
• Increasing the proportion of non-residential development as a proportion of the population • Addressing the range and affordability of housing options • Increasing the use of public transport • Addressing inequities in the distribution of regional growth • Improving telecommunication services	• Increasing the availability of trades people and improving the standard of workmanship • Evaluating the number of education facilities • Better delivery of specialist services to the region • Improvements to allied health services • Coordination of better career pathways
Environment dimension	**Social capital dimension**
• Rural and urban road infrastructure • Balancing industrial development and environmental management • Improving the management of the natural environment	• Increasing the proportion of women with occupation categories 'professional, management or administrator' • Decreasing the rate of crime against persons and property • Re-evaluating the level of entertainment available • Empowering communities and strengthening families

Translating liveability performance into priorities

The liveability audit was able to identify priority areas according to both SEQ and MWI respondents. The challenge for regional entities is to then translate these priorities to remedial actions.

Described here are a two step process of performance measurement and the creation of priorities. This does not include a critique of the underlying rationale and equitable distribution of limited resources to those areas of most need. This is a different question to be discussed in the concluding statements.

By examining the components of these liveability measures, regional organisations could identify those on which its efforts should focus in improving the regions performance. This would also identify those upon which it can have a direct or indirect influence. It is important to consider which regional organisations have involvement as a regulator or service provider and the extent to which these activities present an opportunity to improve the region as a place to live, work and do business.

For example, consider the range of items listed under the economic dimension:

- Increasing the proportion of non-residential development as a proportion of the population
- Addressing the range and affordability of housing options
- Increasing the use of public transport

- Addressing inequities in the distribution of regional growth
- Improving telecommunication services

The regional councils have a direct (regulatory) influence over the quality of some of these attributes, to a limited degree. The regional councils have encouraged and facilitated housing support groups such as the Whitsunday Housing Company, and other proposals are in train. While council can do a lot to support the global positioning of the region, it needs to recognise the limitations of its jurisdiction. The extent to which regional governance impacts on national telecommunications policies and the re-distribution of regional growth is questionable.

Hence, from a global region positioning perspective Council needs to review and determine the extent to which it is focussing its resources on maintaining or improving and safe-guarding (mitigating risks to) the quality of the priority factors. This would involve:

- undertaking a strength, weakness, opportunity & threat assessment of each attribute;
- identifying the actions that could be taken to address any issues or actions arising, resources required and the level of responsibility for these i.e. Local State or National; and
- using a decision analysis approach to decide on the priorities for action given the resources available.

This is clear when examining the most important liveability factors from the open-ended survey responses. The top three categories of lifestyle, natural environment and climate are factor for which regional authorities have little significant influence over.

Of the respondents who had relocated to the region the main reasons cited for relocating were the lifestyle of the region, this included both sea-change and tree-change aspects such as moving from large urban areas to a quieter location which was perceived to be safer with less traffic, vandalism and more convenient. The affordability of housing options was also cited along with better employment opportunities. A small number expressed that they relocated because they had to and not because of choice.

The most important factor of liveability according to the respondents of the survey was recoded under the category of lifestyle. This category included many similar comments from both the SEQ and MWI respondents with the liveability of the MWI region being equated with a country lifestyle that was relaxed, tropical and had a strong sense of community. The MWI respondents also equated the liveability of the region with closeness with family and friends and a safe environment that offered more privacy than highly urbanised environments. One concern from MWI respondents was a level of uncertainty over the pace and direction of development in some areas of the MWI region and a fear that the 'place is getting too big'.

The second most important factor/s by all respondents was the natural environment and the climate. The main natural environment features were the coastline, Great Barrier Reef and islands which were generously described as nothing short of paradise. Other environment aspects highlighted were the hinterland regions and the national parks with the rainforest. Two other important areas were views of sugar cane with hills in the background and the feeling of wide open space. As a percentage of responses the natural environment and climate was over twenty percentage points higher as a factor of liveability in the MWI region for SEQ respondents than those from the MWI region.

Conclusion:

As regions seek responses to increasing global pressure to compete for resources solutions are adopted to enhance the performance of regions. An underlying narrative of the liveability audit was to respond to the identified growth in the WMI region that was being largely driven by high commodity prices and demand for coal in the global market. It is hard to be critical of regional governments who are under these types of pressures however one way of reading the responses at the regional level is that a quick-fix neo-liberalist solution of importing skills to fulfil demand within a boom-bust sector may be short sighted. More traditional regional development approaches would suggest that a longer term approach of developing human resource capacity within the region may be more sustainable. A quick look at the workforce in the mining sector in the region shows that the significant proportion is from the local region. Those workers within the work camps in the region tend to be low skill workers and largely contract labour.

Undertaking a liveability audit to recruit skilled labour may be missing the point of redistributive functions of all levels of government. As stated earlier competition particularly unfettered competition can shift the focus of policy to a redefined ‘deserving’ middle class as opposed to those who are not the winners in the global conflagration.

In summary, a number of composite liveability measures and rankings are available for the comparison of cities, regions and countries. Depending on the purpose of the study, these composite measures may include substantially different factors. The use and value of composite liveability indicators in public policy development has not been clearly established and should not be undertaken uncritically. The different liveability rankings may highlight different problem areas and in some cases there are conflicting results. Composite liveability indicators do, however, force a recognition of the trade-offs involved in liveability. The different weightings acknowledge that improving one factor of liveability may come at a cost to another factor. Composite indicators also provide a benefit by increasing information available in each region. For individuals or firms who are considering relocating, composite indicators may provide a comprehensive ranking of the positives and negatives of each region.

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