3. БУХГАЛТЕРСЬКИЙ ОБЛІК В УПРАВЛІННІ СТРАТЕГІЯМИ ДІЯЛЬНОСТІ ТА КОНКУРЕНТНОМУ СЕРЕДОВИЩІ: ВІТЧИЗНЯНИЙ ДОСВІД ТА СВІТОВА ПРАКТИКА

Serbin Sergei
associate professor (PhD)
Serbin Alexander
(MBA)
Macquarie University
Sydney, Australia

PROJECT OF SUSTAINABILITY AND NATIONAL COMPETITIVE ADVANTAGE IN THE MINING INDUSTRY IN AUSTRALIA

The research identifies depletion of resources as a significant challenge. The "Natural Resource curse", outlines the depletion of natural resources in the mining sector and the affect it will have on the purchasing power of the Australian dollar towards foreign goods. (Tony Makin, 2015) A second challenge is the requirement for companies to obtain a social licence to operate. This requires mining companies need to meet the local community's interest in addition to their own. The environment presents an important challenge, mining exploits non-renewable resources, produces large amounts of waste and permanently changes or damages the landscape. (International Institute for Environment and Development, 2002, p.6) This inherent factor to the industry require more than just minor adjustments to achieve long-term sustainability. Thirdly, Australia's recent mining boom created a dependence on the economy of China and how the levelling out of China's growth will affect Australia's growth. (Thirlwell, 2015) The mining industry must address this slow in demand from China. Finally, there is increasing demand for the mining industry to incorporate corporate social responsibility in order to sustain the support of their home market. Industry leaders identify this as one of the main challenges facing the mining industry today. (EY, 2014).

For the mining industry to overcome these challenges an initial recommended is for the Australian government to conduct a national inquiry into the Australian mining industry. This represents a short-term step in the direction of establishing and strengthening long term solutions. Some Long-term solutions in regards to environmental challenges are for the Australian government to expand and strengthen the requirements in the JORC Code (*Australasian Code for Articleing of Exploration Results, Mineral Resources and Ore Reserves*) as well as enforcement mechanisms for the code. Cleaner production practices should also be adopted by undergoing management and structural change. (Hilson, 2000) Investment into renewable energy sources should be introduced and finally, elements of first mover advantage as a bid to secure Australia's position to supply China's secure demand.

This article examines Australia's mining industry in attempt to identify challenges and make recommendations to improve the industry's national competitive advantage (NCA) and sustainability. With particular focus on challenges such as Depletion of resources, social licence to operate, environment, Australia's dependence on the economy of China and the slow in demand for mining materials. The information in the article comes from a combination of Scholarly Articles, textbooks, online and other credible sources.

Mining is defined by the Australian Mining Technology Services Action Agenda (MTSAA) to include exploration, mining (extraction), quarrying and coal and mineral processing (smelting and refining of metals and minerals). (Mudd, 2010) Mineral resources are generally accepted to be finite. (Mudd, 2010) Therefore discussions of sustainability in the mining industry are of high importance. Sustainability in this context refers to the industry's capacity to endure, and thrive to meet the needs of future generations. (Mudd, 2007).

Two theories that attempt to capture trade are; New Trade Theory; and Porter's Diamond Theory. This article looks at the mining industry through the lenses of these two theories in attempt to make recommendations to improve and sustain Australia's national competitive advantage (NCA). There are limitations to understanding trade through Porter's Diamond theory however, as it is yet to be tested empirically. (Taylor, 2015, p.97 The Australian mining industry was formed in 1851, with the start of the gold rush era in Ophir, New South Wales. By the 1900's most of the nation's gold reserves were depleted, however it was quickly discovered that Australia proved to be rich in many other minerals. The industry progressed to mine these new found minerals such as Zinc, Lead and Copper. In 1960 the exporting of metals such as Iron was deregulated which led to the exploration of more areas in Australia and the discovery new metals such as tungsten, bauxite, nickel and other resources such as oil, natural gas and uranium. Australia has become one of the world's leading resource nations which resulted in mining resources, metals and minerals being Australia's largest export. (Australian Government Department of GeoScience, 2017). Australia's mining industry has experienced fluctuations in terms of profitability. An example of this is in 2008 during the Global Financial Crisis whilst in 2011 the export of commodities from Australia grew to its highest in since 1985. (Reserve Bank of Australia, 2017). Australia's mining industry has changed its trading affiliations over the past century. In 1900's Australia predominantly traded with Britain with trade dropping by 50% in 1950. As trade dropped with the european countries trade with USA grew rapidly. Trade with Asian countries such as china began to grow by the early 2000's. (Encyclopaedia Britannica, 2015).

The purpose of the article – to analyse the main trends in the mining policies of Australia and China in the context of the course "Global Business". Australia produces and exports a vast amount of commodities such as: coal, copper, bauxite and gold. Previous mining booms have been a result of new discoveries and expansions whereas the most recent mining boom (since around 2005) has been a result of an increase in foreign demand. (Banks, 2012) This growth was mainly due to the economic expansion of China and other Asian economies (Mudd, 2010). Growth for the upcoming decades are redacted due to technological advances, which are likely to expand current rates of production (Connolly et al, 2011, p. 119). Moreover, a significant production growth occurred over this period as mining firms began reducing costs by outsourcing, industry enhancement and acquiring new technologies, and improving associated mining service and service technologies. Thus, by the end of the 2000s, Australia's competitive advantage has risen due to the export of coal and iron ore where price growth was relatively high (Connolly et al, 2011, p. 119). Two of the most valuable local mining companies in Australia are BHP Billiton and Rio Tinto, which implies that Australia has a competitive advantage in the mining industry (Statista, 2015). Rio Tinto (a large privately owned mining company) and Australia's Construction, Forestry, Mining and Energy Union (CFMEU) are currently engaging in ways to trade with other mining industries over international corporate campaign issues (Sadler, 2004, p.35).

Analysis of recent research and publications. The new trade theory emerged in the 1970's, and builds on the principles of comparative advantage trade patterns. (Taylor, 2015, p.90) Comparative advantage looks at essential factors such as natural resources or climate which enable one country to produce a good or service at a lower cost than another. The new trade theory recognised that countries who produced similar goods and services displayed continuous trade with one another, regardless of the fact that they have nothing to gain (New Trade Theory, 2015).

Ultimately, new trade theory determined that comparative advantage not only stems from natural resources; rather from economies of scale and network effects (New Trade Theory, 2015). Economies of scale are the cost advantages that are associated with large- scale production. (Taylor, 2015, p.90) Although there may be no disadvantages for a country to produce a certain good, it may be in their best interest to import the good from another country in order to better specialize in other products to attain economies of scale (New Trade Theory, 2015). Early entrants into an industry have an inherent advantage, having more time to attain economies of scale, thus making it difficult for new firms to compete. While emerging industries in developing nations may have a harder time becoming established in the existing global market, as the developed world has already established an economy of scale (New Trade Theory, 2015). New trade theory recognises that competitive advantages are not only attributed to natural factors but also market and government factors. Therefore, the use of subsidies or tariffs would support developing industries in developing countries to exploit economies of scales and be competitive within the global market (New Trade Theory, 2015). An example of an economy of scale is the Mining industry in Australia. New trade theory allows for nations to focus on a specific aspect of manufacturing. (New Trade Theory, 2015) An example of this would be Australia focusing on the mining of Raw Materials and China focusing on manufacturing of the goods, this allows for the drop in price for the goods and greater efficiency for the countries. This shows how economies of scale can be incorporated into the new trade theory.

Economist Michael Porter first defined the national competitive advantage of nations (NCA) in 1990. NCA is an evaluation of how competitively a nation participates in international markets. Porter theorised that there are four main attributes, which modify four ingredients to

increase competitiveness (National Competitive Advantage Theory, 2015). The four ingredients are; the availability of resources, the goals of individuals in companies, the information used in deciding which opportunities to pursue, and the innovation and investment pressure on companies (National Competitive Advantage Theory, 2015). The four main interdependent attributes that together promote the competitive advantage of a country in a particular industry are; firm strategy, structure and rivalry, secondly: Demand conditions, Related industries, and factor conditions. Porter also argues that two additional variables are government and chance. These attributes are outlined below in relation to Australia's mining industry. Factor conditions are a set of factors that make a nation competitive (human resources, material resources, infrastructure, low labour costs, etc). (National Competitive Advantage Theory, 2015) The usage of these factors is more important than the factors themselves, if a nation lacks a factor they will use innovation to make up for it (National Competitive Advantage Theory, 2015). Porter distinguished between basic and advanced factor conditions (Taylor, 2015, p.95). Australia has been exploiting its natural resources since the Gold Rush period. This has allowed for continued involvement and development other necessary factor conditions. For example, mining infrastructure is highly sophisticated, especially considering large scale mining operation are often carried out in all states across the country and in remote areas.

Main results. The mining industry also demands a sizeable workforce, and is currently directly responsible for the employment of 267,700 workers. (Australian Government Department of Employment, 2014, p.1) However human resources are also required in other supporting industries, such as construction (development of infrastructure and mine sites), transport, postal and warehousing (materials handling and transport), manufacturing (downstream processing) and professional, scientific and technical Services (engineering and technical support services). (Australian Government Department of Employment, 2014, p.1) The requirement of a large labour force is good for the Australian economy. This factor condition is supplied domestically and internationally. Recent census data from 2006, only 479 Indigenous of 84,724 in Northern Australia were employed in mining, not accounting for Indigenous employees who reside well outside the region and commute to work. For example, North West Queensland Mineral Province

consisted of 8.2% of indigenous employment majority of which rely on the Fly-in-Fly-out (FIFO) operations to commute to work (Brereton et al, 2009, p. 16). The Aboriginal communities where companies are mining are suffering from high levels of unemployment and Indigenous Australians have lower employment rate than non-indigenous Australians. (Gray, et al., 2012, p.1) Training and employment of Indigenous Australians could be a better way of fulfilling the industries needs for a skilled labour force.

Mining exploits non-renewable resources, produces large amounts of waste, and permanently changes or damages the landscape. (International Institute for Environment and Development, 2002, p.6) This finite quantity of ores has even forced mining operations around the globe to shut down. (Mudd, 2009, p.98) Some argue that this makes the mining industry intrinsically unsustainable. (Mudd, 2007) In the past this factor has been successfully managed with the discovery of new mines, resources and technology. However, in 2005 the Minister for Industry, Tourism and Resources at the time stated that at the current rate of production Australia's Black Coal resources will last approximately 110 years. (Bartlett, 2006, p.151) The minister's statement was full of misplaced optimism. (Bartlett, 2006, p.151) Bartlett outlines some mathematical weaknesses to this estimation; he suggests exhaustion of black coal could be sooner as production does not continue at the same rate, production levels increase. (Bartlett,2006, p.162) It is clear however that it is a matter of urgency and Australia's future success in the mining industry will depend on how it manages this change in the available factor conditions. This issue has been described by economists as the "Natural resource curse" (Tony Makin, 2015). The "Curse" occurs when an economy such as Australia, which is based around the mining industry, depletes all of its natural resources and needs to incorporate higher prices for the remaining resources in order to maintain a sustainable national economy. (Tony Makin, 2015)

The significance of the Australian mining industry to Australia according to the Reserve Bank of Australia is that the strength of the Australian dollar is based on the export of Australia's commodities to other countries. (Reserve Bank Australia, 2017) Australia's natural resources are a distinguishing factor in deciding the purchasing power of the Australian dollar. (Reserve Bank Australia, 2017) From observing the Reserve Bank Australia index of Commodity prices, it is possible to see that after the mining boom in 2011 the value of the commodities is on a gradual decline. (Reserve Bank Australia, 2017) This is due to the depletion of natural resources in the Mining sector and means that gradually the purchasing power of the Australian dollar towards foreign goods and services will slowly become weaker. (Tony Makin, 2015)

Conclusion. This article suggests that at the current rates of production Australia's mining industry is unsustainable in the long term. The Current lax legislation and policy reflects a misplaced optimism regarding the lifespan of the mining industry. The FTA with China represents a move in the right direction to support the growth of Australia's other important industries such as agriculture and services. The main areas of risk regarding the sustainability of Australia's NCA are in relation to: Depletion of Natural Resources, Reliance on the Chinese economy, slow in demand and unsustainable Environmental and Social factors. Our article goes on to make some short and long-term recommendations in regards to these challenges faced by the industry. A short term, general recommendation is for the Australian government to conduct a national inquiry into the Australian mining industry. Such an inquiry would be investigative and act as an initial step toward implementing longer term, evidence based recommendations and changes.

Bibliography

1. Professor Tony Makin (2015), Griffith University, Australia pivots to services. Available from: <http://theconversation.com/as-the-mining-boom-wanes-australia- pivots-to-services-40557> [17 May 2015]
2. Thirlwell, Mark, (2015), How Dependant are Australian Exports on China: A New Research Note, *Australian Trade Commision*, Available from: <http://www.austrade.gov.au/about-

austrade/economics-at-austrade/how-dependent- are-australian-exports-on-china> [15 May 2015]
3. Hilson, G., (2000), Barriers to implementing cleaner technologies and cleaner production (CP) practices in the mining industry: A case study of the Americas, *Minerals Engineering*, Vol 3(7), pp.699-717
4. Mudd, Gavin, (2010), Knowledge-intensive service activities in the success of the Australian mining industry, *The Service Industries Journal*, Vol 30(1), pp.55-70
5. Mudd, Gavin M., (2010), The Environmental Sustainability of Mining in Australia: Key Mega-trends and Looming Constraints, *Resources Policy*, Vol 35(2), pp.98-115
6. Porter, Michael E, (1990), The Competitive Advantage of Nations, *Harvard Business Review*, pp.73-93
7. Australian Government Department of Geoscience History of Australia's Mining Industry (2012) Available from: <http://www.australianminesatlas.gov.au/history/index.html> [17 May 2017]
8. Connolly, E., & Orsmond, D. (2011). *The mining industry: from bust to boom*. Economic Analysis Department, Reserve Bank of Australia. Available from: <http://core.ac.uk/download/pdf/6469840.pdf> [15 May 2017]
9. Sadler, D. (2004). Trade unions, coalitions and communities: Australia's Construction, Forestry, Mining and Energy Union and the international stakeholder campaign against Rio Tinto. *Geoforum*, Vol *35*(1), pp.35-46.
10. Reserve Bank Australia, Index of Commodity Prices. Availble from: <http://www.rba.gov.au/statistics/frequency/commodity-prices.html> [17 May 2017]
11. Encyclopaedia Britannica, Commonwealth of Australia, 2015.Available from: <http://www.britannica.com/EBchecked/topic/43654/Australia/45025/Trade>[17 May 2017]
12. Taylor, Murray, (2015), *Global Business 4e,* McGraw Hill Education.
13. Barlett, Albert, A., (2006), A Depletion Protocol for Non-Renewable Natural Resources: Australia as an Example, *Natural Resources Research*, Vol. 15, pp.151-164.

Абдуллаева М. Н.
кандидат экономических наук, доцент
Ташкентский институт инженеров транспорта
г.Ташкент, Республика Узбекистан

РОЛЬ БУХГАЛТЕРСКОГО УЧЕТА В СТРАТЕГИЧЕСКОМ УПРАВЛЕНИИ ОРГАНИЗАЦИЕЙ

Как известно для промышленного предприятия обеспечение стабильной работы в условиях рыночной экономики имеет важное значение. Средством достижения этого является реализация эффективных мероприятий по приведению предприятия в соответствие со стратегией его развития и требует решения таких проблем, как улучшение управления, повышение эффективности производства и конкурентоспособности выпускаемой продукции, рост производительности труда, улучшение финансово-экономических результатов, автоматизация информационного обеспечения, что влечет за собой необходимость принятия принципиально новых и оптимальных управленческих решений.

Ежегодно в Республике Узбекистан реализуются широкомасштабные инвестиционные проекты, направленные на дальнейшее развитие экономики, социальной сферы, инфраструктуры, транспортно-коммуникационных сетей, за счет чего создаются новые рабочие места и, соответственно, увеличиваются доходы населения. Реализация