

Deloitte Access Economics

Economic and statistical analysis of the .au domain range

.au Domain Administration
Ltd and
AusRegistry Pty Ltd

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Glossary

2LD	Second-level domain
AUDA	.au Domain Administration
CGDN	Community Geographic Domain Names
DNS	Domain Name System
FTE	Full-time equivalent
GTLD	Generic Top-Level Domains
ICANN	Internet Corporation for Assigned Names and Numbers

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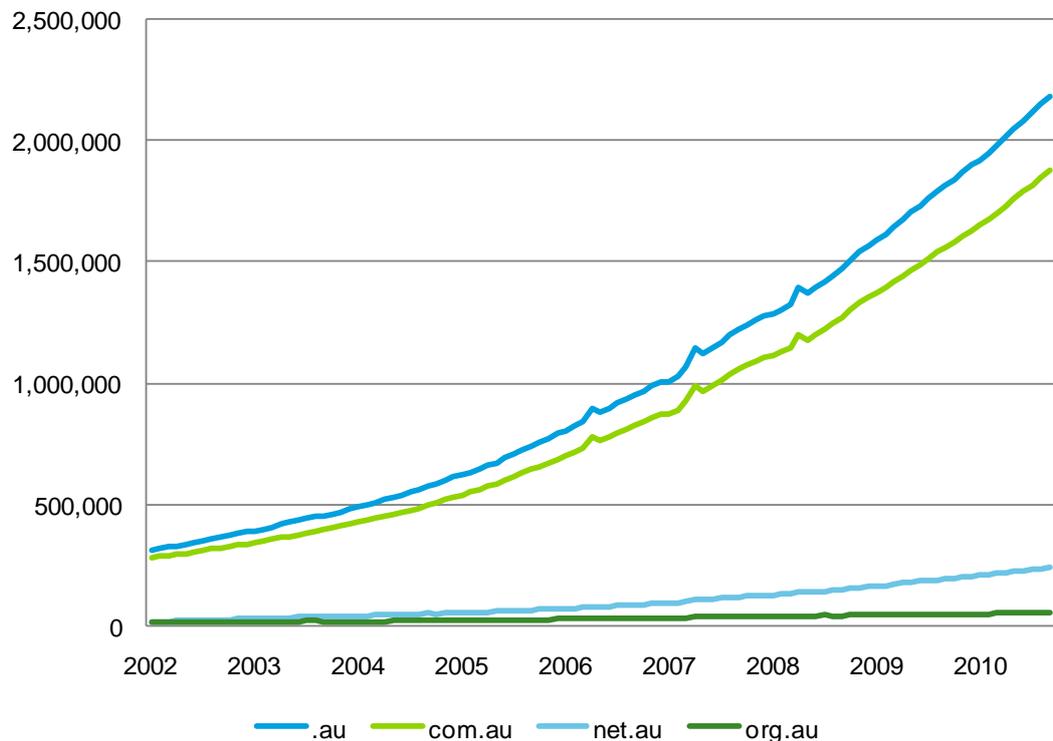
Executive Summary

Australia’s manager of the Domain Name System (DNS), au Domain Administration (auDA), in conjunction with the Registry Operator, AusRegistry Pty Ltd, have jointly commissioned Deloitte Access Economics to undertake a statistical, economic and market analysis of the .au domain range in Australia. The focus of this study is to review specifically the economic contribution of .au internet domain across Australian internet users, businesses and registrants.

Domain name activity and trends

In August 2011, total domain names on the register in Australia reached 2.18 million. The total number of registered .au domain names has grown exponentially in recent years (see Chart i), with acceleration in the rate of growth from around 2005. Since December 2002 the total number of registered .au domain names has increased by more than 600%. Overwhelmingly these domain names are in the com.au range, accounting for more than 85% of the total.

Chart i: Total .au domain name registrations, December 2002-August 2011



Source: AusRegistry website

Domain name registration activity is focused around the major population centres at a greater than proportional rate. Overall, 80% of registered .au domain names in Australia have been registered in major cities, compared to only 68% of the total population residing in these major cities (ABS Census data).

When the number of registered .au domain names is compared against the number of businesses by region, however, the density of domain names is highest for businesses in very remote Australia, with 0.67 registrations per business. This may be indicative of the fact that these businesses are more reliant on communications technology in their operations.

Economic contribution of .au

The economic contribution of .au is the level of total value added to Australia's gross domestic product by the industry. This provides a measure of the industry's relative importance to the overall economy. In this case, the economic contribution estimates measures the activity generated through assisting Australian businesses and individuals in getting online, rather than the economic activity generated through their online presence.

Direct economic activity – activity associated with the registration and hosting of .au domains – accounts for 57% of the total economic contribution of the sector, at a total of \$269.6 million. The balance is accounted for by services provided to the sector, including web design and infrastructure.

The total economic contribution of the .au domain name registration and operation in Australia is estimated at \$475 million for 2010-11 (see Table iiTable 5.1). Of this, 58% of the total value added accrues to employees, indicating an overall relatively labour-intensive industry.

Table ii: Total contribution, .au domain name system

	\$m (2010-11)
Wages	275.7
Gross Operating Surplus	199.1
Total value added	474.7

Source: Deloitte Access Economics estimates

The sector accounts for a total of 4,330 full-time equivalent (FTE) positions in the economy (see Table iii). Of these, 63% are directly associated with the industry, with a smaller number of flow-on positions.

Table iii: Total employment, .au domain name system

	FTE employees
Direct	2,744
Indirect	1,583
Total	4,326

Source: Deloitte Access Economics estimates

Future trends

Ongoing and forthcoming changes to the types of domain names available for registration and overall internet trends may influence the importance of .au domain names going forward. Potentially important changes include:

- The development of new generic Top-Level Domains (gTLDs) including .sydney and .sport, as well as the ability to use non-Latin characters in domain names;
- The increasing importance of search engines for consumers seeking information; and
- The role of social media and group buying sites in consumer purchase decisions.

Deloitte Access Economics

1 Introduction

Established in 1999, .au Domain Administration (auDA) is the manager of the Domain Name System (DNS) in Australia. Combined with AusRegistry, auDA are developing a number of awareness-raising initiatives in order to reaffirm .au's strong market position and promote the domain as a trusted, well-recognised, home for Australians on the Internet.

Within this objective, auDA and AusRegistry have jointly commissioned Deloitte Access Economics to undertake a statistical, economic and market analysis of the .au domain range in Australia. The focus of this study is to review specifically the economic contribution of .au internet domain across Australian internet users, businesses and registrants. This is a narrower review than simply the value of the internet, or websites operated by Australians, as there is a need to exclude, for example, Australian organisations that use '.com' only web sites. The study also does not develop estimates of the value derived from websites themselves, for example through e-commerce or marketing value, but instead focuses on the activity that creates functional websites for Australia organisations.

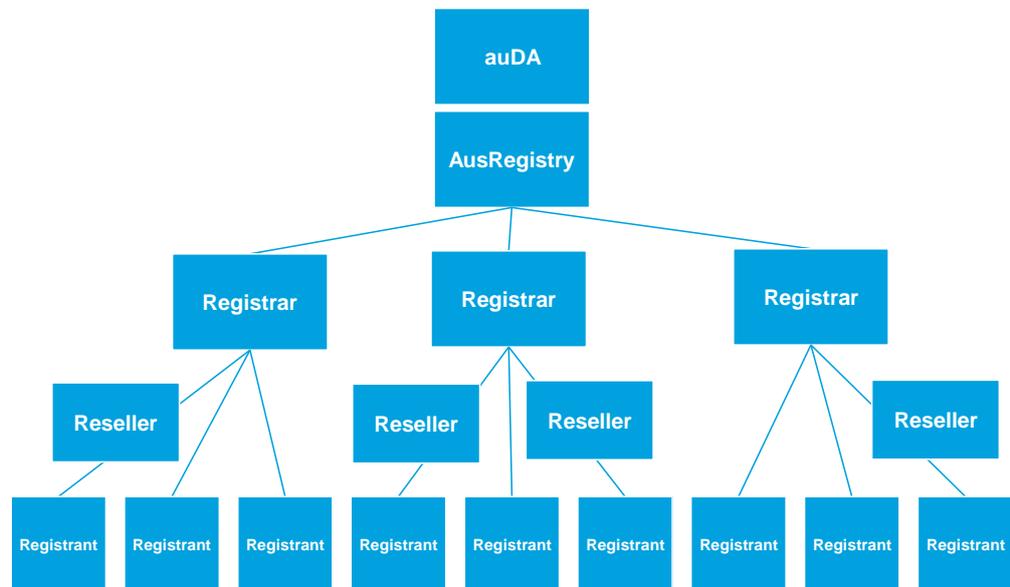
There are four main components to this study:

- A comprehensive and varied analysis of current figures and trends in '.au' registrations and market penetration rates;
- Analysis of broad whole-of-industry figures relating to the operation of the Domain Name System in Australia;
- Assessment of the overall economic contribution of '.au'; and
- A broad analysis of the future of the domain name industry in general.

1.1 How the Australian system works

The domain name registration system in Australia consists of a peak body industry self-regulator, auDA, which supervises, licenses and accredits participants in the domain name registration market. In addition a for-profit entity, AusRegistry, is licensed to provide integrated technical and administrative services with an uplink to the global network. Facilitated by these two bodies, registrars provide domain name registrations on a retail basis; resellers service the secondary market for existing registrations; and registrants are able to meet their needs as end consumers in the system. Figure 1.1 depicts the hierarchical structure of the system.

The Australian Government in December 2000 formally endorsed auDA as the policy authority and industry self-regulatory body for the .au domain space, subject to the Government's reserve powers under the *Telecommunications Act 1997*. Among its principal functions, auDA develops and implements domain name policy, licenses second level domain (2LD) registry operators, accredits and licenses registrars, facilitates .au Dispute Resolution Policy and represents the industry at the Internet Corporation for Assigned Names and Numbers (ICANN), the global coordinator of unique internet identifiers.

Figure 1.1: Structure of the .au domain name system

As part of the AusRegistry Group, AusRegistry has been licensed by auDA as the registry operator and wholesale provider for all commercial domain names (*com.au*, *net.au*, *id.au*, *asn.au* and *org.au*) and non-commercial domain names, *gov.au* and *edu.au*. As part of this role AusRegistry is responsible for providing the associated IT infrastructure for primary name and Whols servers within the *.au* namespace, and thus stable operation of the internet in Australia. The current license expires in 2014.

Registrars or retailers are accredited by auDA to provide domain names to customers or prospective registrants. If available, the domain name purchased by a customer along with the requisite information such as contact details is submitted through the particular Registrar to the Registry database maintained by AusRegistry. This information is then propagated across the Internet's zone files worldwide.

There are currently 35 accredited Registrars in Australia¹, each of them with direct access to the Registry database and entitled to wholesale domain prices offered by AusRegistry. Other than the core service of domain name registration, many registrars also provide extraneous services including web hosting, web design and, in some cases, online marketing which are complementary to and potentially generate additional demand for the registration service.

In addition to the primary market for domain names, there is an active secondary market where registrants on-sell their existing domain name to a new user. There is also activity from resellers, who sell new domain names on behalf of registrars and manage *domain name* records for their customers through an interface with their registrar. However, in

¹ See <http://www.auda.org.au/registrars/accredited-registrars/>

these cases the initial registrar remains responsible for registering the .au domain name with AusRegistry.

Not all second-level domains (2LDs, i.e. web addresses with a .au suffix) are available to the Australian public in general – there are several classes each serving a particular type of enterprise. Firstly, there are ‘open’ 2LDs, so named because they are open to the general public, subject to some eligibility criteria. This covers the abovementioned commercial domain names. Chiefly, among these are *com.au* and *net.au*, both are available to commercial entities, such as companies (with ACN as registered through ASIC), and businesses (registered with state governments). There is also *id.au*, designated specifically for individuals who are Australian citizens or residents.

Secondly, there are ‘closed’ 2LDs which are only available to entities within a defined sector. These include *edu.au* (for educational institutions registered at federal or state level), *gov.au* (for federal, state and local government bodies) and *csiro.au* (for the sole use of the Commonwealth Science and Industry Research Organisation).

Finally, Community Geographic Domain Names (CGDNs) are reserved for use by community groups with only Australian geographic names allowed in registration. This includes such domain ranges as *nsw.au* and *act.au*.

2 Trends in .au domain range

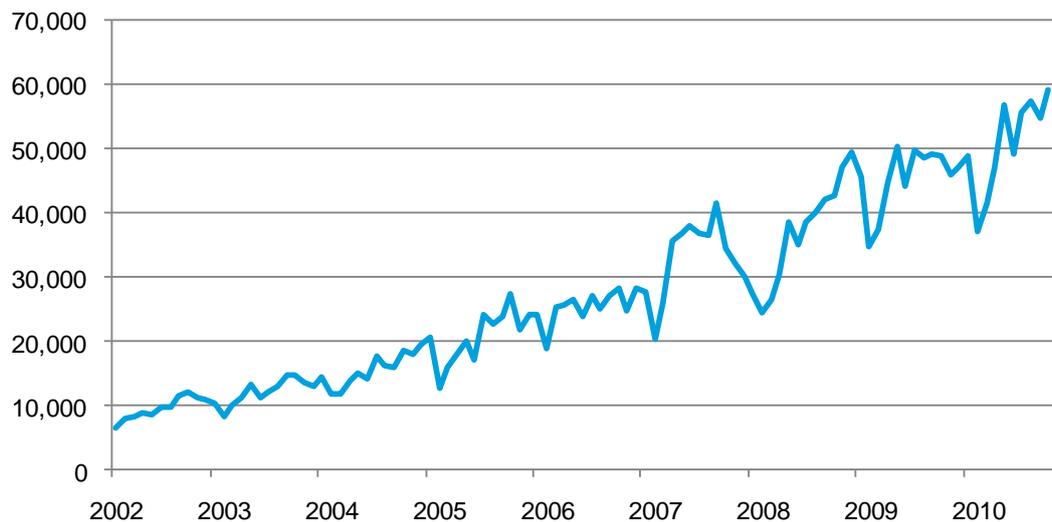
2.1 Registration numbers

2.1.1 New registrations

The number of new .au domain name registrations has been growing consistently over the past decade. That is, not only is the total number of .au domain names increasing, but it is doing so at an increasing rate. In December 2002, just 6,552 new domain names were registered in Australia. By August 2011, this had increased to almost 60,000 new domain names being registered each month.

This growth has been subject to short-term volatility. Most notably, this occurred between September 2008 and February 2009, where the rate of new domain registrations fell by over a quarter compared to the earlier trend of 2008. Shorter drops were also seen in month December 2009 to January 2010. While there are likely to be seasonal factors at play to some extent (with the summer holiday period one of overall lower business activity), the longer downturn in late 2008-early 2009 may relate to performance in the global economy – one key reason for domain name registrations is the establishment of a new business, which is less likely to occur during times of economic uncertainty.

Chart 2.1: New domain registrations, December 2002-August 2011



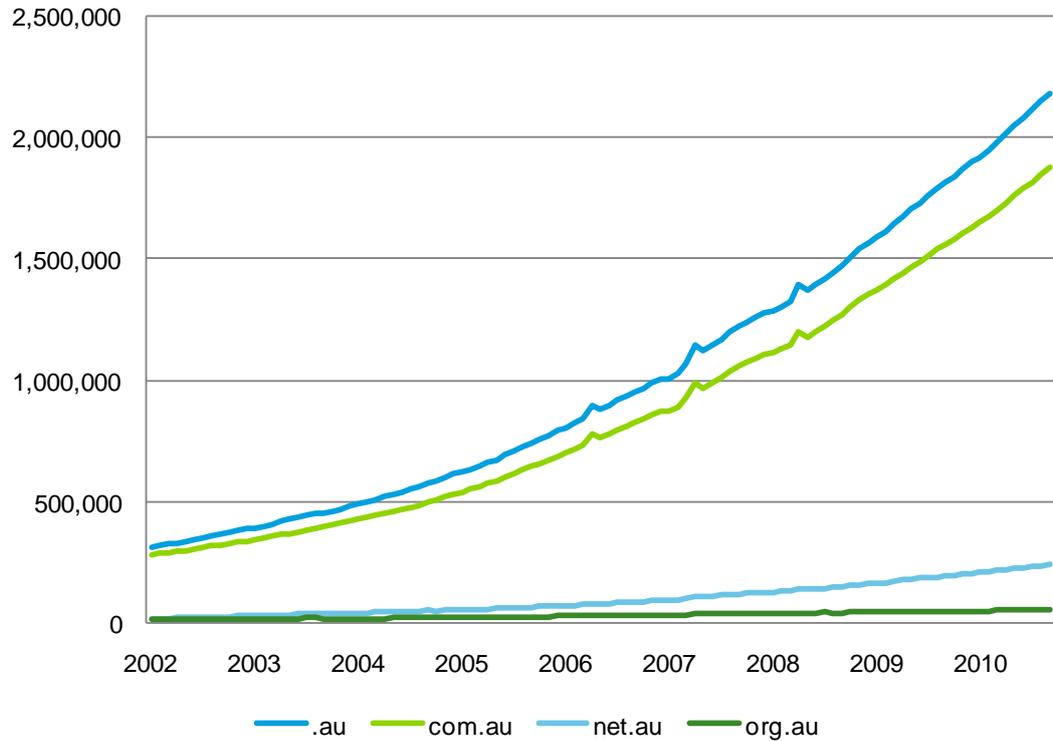
Source: AusRegistry website

2.1.2 Total registrations

In August 2011, total domain names on the register in Australia reached 2.18 million. The total number of registered .au domain names has grown exponentially in recent years (see

Chart 2.2), with acceleration in the rate of growth from around 2005. Since December 2002 the total number of registered .au domain names has increased by more than 600%.

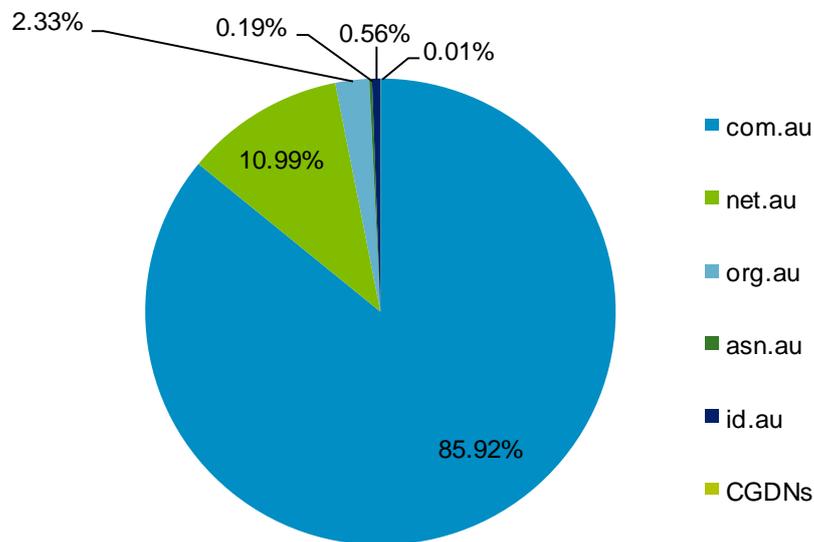
Chart 2.2: Total .au domain name registrations, December 2002-August 2011



Source: AusRegistry website

The overwhelming majority of .au domain names are in the com.au range. At August 2011, com.au accounted for 85% of all registered .au domain names, followed by net.au and org.au (see Chart 2.3). This represents a slight decline in total share, whereas, with net.au more than doubling its total share of the .au market between 2002-03 and 2010-11. However, the dominance of com.au in the market is still sufficiently large that, as shown by Chart 2.2, the trend line for .au domain registrations as a whole almost perfectly matches the com.au line, with little scope for other domain types to influence the whole-of-.au result.

Chart 2.3: Registered domain names by extension type, at August 2011



Source: AusRegistry website

2.2 Geographic location

Chart 2.4 presents a heat map of Australia, showing the location of .au domain name registrants. As might be expected, the geographical distribution of registrants closely resembles the distribution of the Australian population as a whole, with large centres of activity focused around Sydney and its surrounds, Melbourne, and Brisbane and south-east Queensland. Secondary hubs of activity can be seen around Perth, Adelaide and Canberra, with additional activity observed along the eastern seaboard, where a large share of Australia’s regional population resides. In comparison, very few domain name registrations originate from the Northern Territory and regional Western Australia.

Chart 2.5 reveals that 80% of registered .au domain names in Australia have been registered in major cities. This is a greater than proportional share of the total population, with only 68% of the total population residing in these major cities (ABS Census data). At the other end of the scale, just 1.8% of all registered .au domain names in Australia have been registered in remote or very remote parts of Australia, compared to 2.5% of the population.

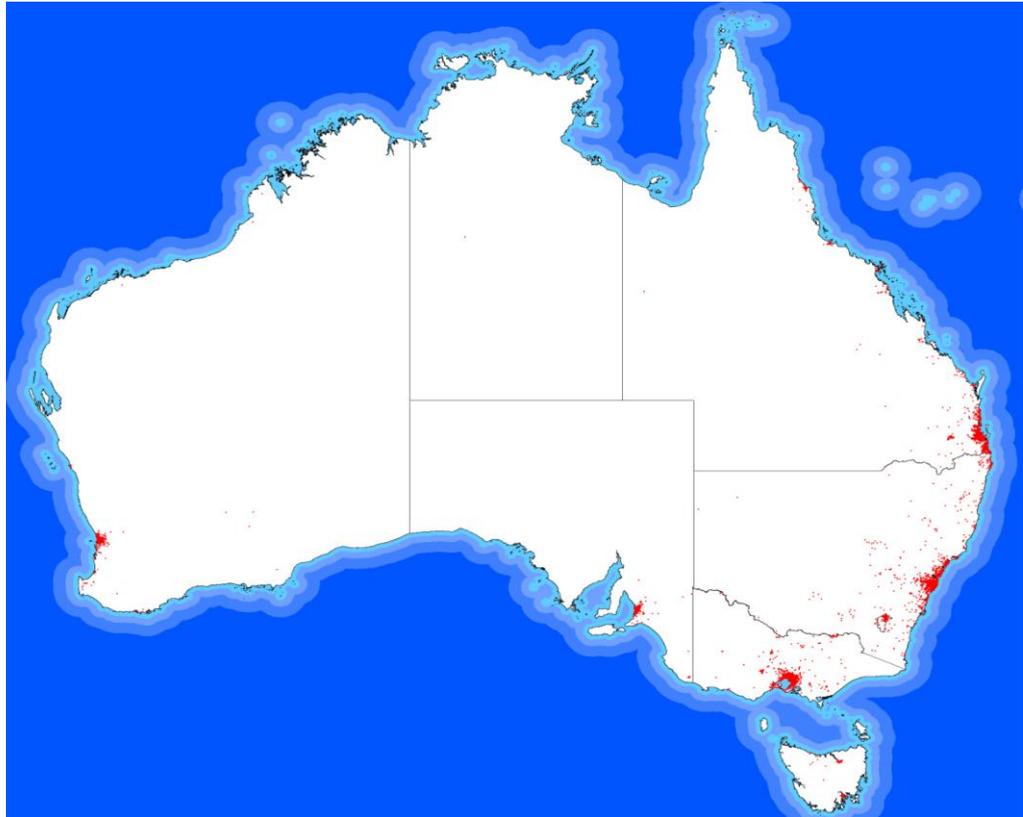
When the ratio of businesses to .au domain name registrations is considered, a surprising result emerges. This ratio is high for the major cities of Australia, with 0.61 registrations in the representative data sample provided by AusRegistry per business in these regions². However, the highest result is for businesses in very remote Australia, with 0.67 registrations per business.

This is a somewhat surprising result – typically rates of connection to the internet are lower in very remote Australia, which reflects the overall lower access to quality internet services

² Note that this does not imply that 61% of businesses in the major cities have a .au website. Some businesses may account for multiple registrations, while some registrations are not businesses.

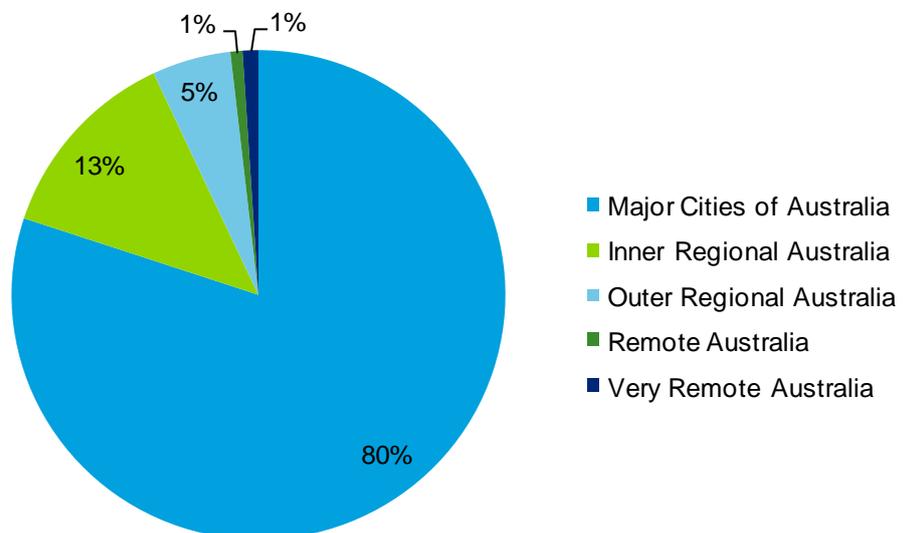
in these regions. This finding may be indicative of the fact that these businesses are more reliant on communications technology in their operations, or it may reflect some other factor, for example the relatively low rate of registered businesses in these communities.

Chart 2.4: Registered .au domain names, by registrant location



Source: .au domain data extract, Deloitte Access Economics

Chart 2.5: Registered .au domain names, by registrant remoteness



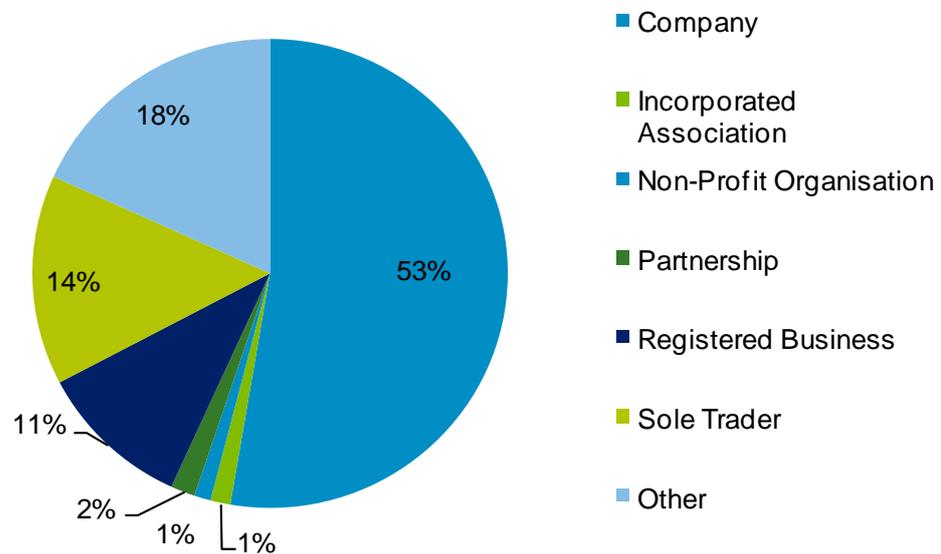
Source: .au domain data extract

2.3 Business characteristics

2.3.1 By type of organisation

Companies make up the largest share of registered .au domain names, accounting for 53% of the total. This is followed by sole traders and registered businesses, at 14% and 11% respectively. Non-profit based organisations account for only a very small share of total .au domain name registration activity.

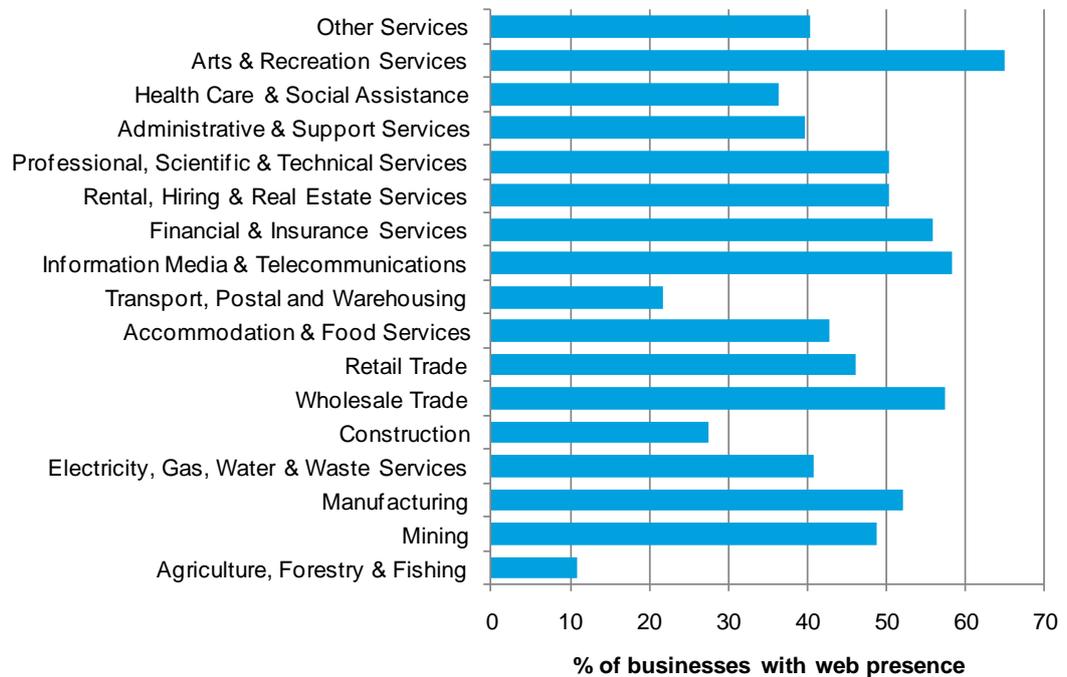
Chart 2.6: Registered .au domain names, by organisation type of registrant



Source: .au domain data extract

2.3.2 Industry

Data limitations have meant that this cannot be considered exclusively for .au domain names. However, the ABS publication *Business Use of Information Technology, 2009-10* (ABS 2011) presents figures on businesses with a web presence in Australia by industry. This includes businesses with a website of all types (including non-.au domain names), as well as businesses with a presence on another entity's website where they business has substantial control over the content. This specifically includes online listings or directories, meaning that listings on a content site such as truelocal.com.au or yourrestaurants.com.au alone do not count as a web presence. Overall, this metric will slightly overstate the incidence of businesses with .au domain names.

Chart 2.7: Businesses with a web presence, by industry

Source: ABS 2011

Chart 2.7 presents the proportion of businesses with a web presence by industry. Overall, 40% of Australian businesses reported having a web presence in 2009-10. Web presence was highest among arts and recreation services, with 65% of such businesses having a web presence. Potential benefits to these businesses such as the ability to sell tickets online may be helping to drive uptake in this industry.

Other sectors where more than half of all businesses reported having a web presence include information, media and telecommunications (an industry which includes those providing web-hosting and similar services that facilitate business web presence, and historically a technology leader), financial and insurance services, and wholesale trade. The potential to exploit the internet for e-commerce is reflected in the wholesale trade online activity, with 49% of such businesses also receiving orders via the internet in 2009-10.

At the other end of the scale, web presence remains very low among agriculture, forestry and fishing businesses at just 11%, and in the transport, postal and warehousing sector, at 22%. These businesses are likely to have less reason to attain a web presence owing to the lower benefits – they do not benefit in the same way from marketing their business online, and e-commerce is not of particular importance to either industry.

2.3.3 Business size

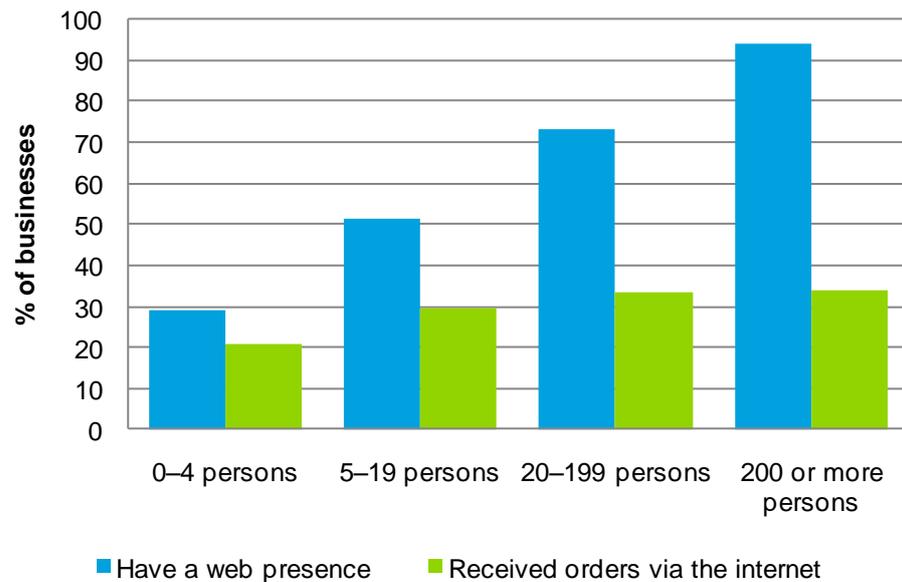
Again, data limitations mean this information is not available for just the .au domain range however, ABS (2011) presents figures on businesses with a web presence in Australia by the number of employees a business has. The number of employees can be used as a broad proxy for the business size.

Chart 2.8 presents the proportion of businesses with a web presence by the number of employees. There is a strong positive relationship between business size and web presence. That is, the larger a business is the more likely it is to have a web presence. Some 94% of Australian businesses with more than 200 employees had a web presence in 2009-10, compared with less than 30% among those businesses with less than 5 employees. Although a weaker relationship, this trend is also seen in the rate at which businesses received orders via the internet.

This relationship may be indicative of several factors:

- The cost of having a web presence may be prohibitive to small businesses;
- Management of larger businesses may have a greater awareness of the potential benefits of having a web presence; or
- The nature of some small businesses (for example sole proprietors or small businesses in the trades industries, agricultural properties) may mean the potential benefits are lower than for very large businesses.

Chart 2.8: Businesses with a web presence, by number of employees



Source: ABS 2011

3 Economic contribution

This section of the report reviews the economic contribution of the .au domain name range in Australia. Economic contribution accounts for total value added generated by an industry in its operations. A nation's gross domestic product (GDP) is equal to the sum of all value added by all of the different parts of the economy. Therefore the value-added provides an indication of the relative importance of a particular industry to the economy as a whole.

3.1 Direct

The direct economic contribution of .au domain names is the economic activity generated directly through the domain name registration system and existence of .au sites. It includes the activities of auDA and AusRegistry as the administrators of the .au registry and registration system, and the domain name registrars. Activities that are required to make the .au domain name functional to the owner may also be considered within the direct contribution space, for example web hosting services.

3.1.1 Methodology

As a starting point, the ABS publication *Information and Communication Technology, Australia, 2006-07* (ABS 2008) is utilised. This publication provides data on employment, industry turnover and industry value added for a range of industry subsectors within the broader ICT industry. In this case the applicable subsector is "Data processing and web hosting services".

Before this can be used to estimate the direct economic contribution, however, some adjustments are required. This "Data processing and web hosting services" includes a wide range of other, non-domain registration activities, such as data entry, processing and storage, online streaming services, and computer leasing/renting services. The web hosting services specifically must be carved out of the total.

This has been done through the number of businesses in the industry. The ABS publication reports a total of 623 businesses in the "Data processing and web hosting services" subsector in 2006-07. As of October 2011 the total businesses in web hosting related activity were:

- 2 administrative bodies (auDA and AusRegistry);
- 35 accredited .au domain name registrars; and
- 289 Australian based web hosting businesses.

These are used to derive an estimated share of total activity in the "Data processing and web hosting services" subsector that may be attributable to domain name activity.

Additionally, the ABS publication presents data from 2006-07 and, as such, there is a need to adjust the results to 2010-11 figures. To inflate the wages bill for employees, the rate of increase in compensation of employees for the Information, Media and

Telecommunications sector from ABS 2011a is used. This implies that, from 2006-07 to 2010-11, the total wages in the industry increased by 23%.

Other metrics, including operating profit and total income, are measured using the change in the consumer price index from June 2007 to June 2011.

3.1.2 Results

Table 3.1 presents the direct contribution of economic activity associated with the .au domain name range. Overall, in 2010-11 the domain name industry in Australia generated \$270 million in value added. The majority of this activity is attributed to the earnings of employees of firms in this sector, with wages accounting for 74% of the total.

Table 3.1: Direct contribution, domain name activity

	\$m (2010-11)
Wages	199.4
Gross Operating Surplus	70.2
Direct value added	269.6

Source: Deloitte Access Economics estimates

This result indicates that the domain name industry is a relatively labour-intensive one. This is borne out by the direct employment figures, which show the sector as providing 2,470 full-time equivalent jobs in 2010-11.

3.2 Indirect

3.2.1 How this may be generated

Indirect activity from the .au domain name system includes:

- Services provided in creating the full web presence e.g. web page design services; and
- Infrastructure purchased for the operation of the registry.

3.2.2 Estimation process

The indirect contribution is generated from utilising gross output multipliers from ABS 2010. These scale up the direct contribution using multipliers for the “Internet Publishing and Broadcasting and Service Providers, Websearch Portals and Data Processing Services” category, which is the closest estimate available to the .au domain name activity in the direct contribution above.

These multipliers generate estimates of wages, gross operating surplus (i.e. profits), the indirect value add for the industry. Employment is generated based upon 2010-11 industry turnover.

3.2.3 Indirect contribution

Table 3.2 presents the indirect contribution of economic activity associated with the .au domain name range. Overall, in 2010-11 the economic activity indirectly associated with the domain name industry in Australia generated \$205 million in value added. The majority of this activity is attributed to capital earnings, with capital accounting for 63% of indirect value added. This result is intuitive as some of this indirect contribution would be hardware and software provision, which is strongly capital-intensive.

Table 3.2: Indirect contribution, .au domain name system

	\$m (2010-11)
Wages	76.2
Gross Operating Surplus	128.9
Indirect value added	205.1

Source: Deloitte Access Economics estimates

This high share of capital in the total indirect value added means that indirect employment relating to the domain name registration system in Australia is relatively small, accounting for a total of 1,580 FTE workers.

3.3 Social and other contribution

Not all of the economic and social activity associated with .au domain activity is captured in this analysis. The economic activity associated with the .au domain name system not captured here includes activity where services such as web hosting or design are provided in-house.

The .au domain range may contribute to economic activity in other ways. For example, .au domain names specifically may help Australian businesses to generate sales activity. Some domestic consumers have a strong preference for 'buying Australian' and the .au domain name provides a signal to consumers of an Australian presence, potentially generating sales to those who see a patriotic value in dealing with local businesses. However, this is an imprecise science as not all businesses with .au domain names are necessarily Australian businesses. For example, international firms such as Dell, have separately registered the .au domain name of their base US website for interactions with Australian consumers, while other businesses including Apple, Microsoft and IBM have all registered the .au extension version of their primary domain name, which redirects to a sub-page of their main .com website.

Other marketing and productivity benefits include:

- Marketing benefits from an online presence and the ability to link website with advertisements on other websites and online listings e.g. Yellow Pages; and
- Ability to be 'always open' to consumers – who can find out about products outside of business hours, and in some cases to make orders over the internet at any time.
 - This generates productivity gains to the business, as there are very few fixed costs associated with the website (i.e. no shopfront rental expenditure) and the reduced supply chain costs from avoiding distribution to retail stores.

Difficulties in assessing how consumers value these factors, including the level of importance Australian consumers may place upon 'buying Australian', and the precise role of online presence in terms of sales generation, mean that these benefits are not fully captured here.

4 Future trends in domain registration

Section 2 of this report discussed historical trends in the rate of .au domain name registrations, and the current level of activity in the .au space. It would be overly simplistic, however, to assume that, because the trend of recent years has been for accelerating growth in .au registrations, this will necessarily continue. This section reviews some of the forthcoming regulation changes and ongoing and forthcoming trends in internet behaviour that may influence the future rate of .au domain name registrations, and what the nature of this influence might be.

4.1 Regulation changes

In 2005, ICANN's Generic Names Supporting Organization (GNSO) began a policy development process to consider the introduction of new generic Top-Level Domains (gTLDs), based on the results of trial rounds conducted in 2000 and 2003. In 2008, the ICANN Board adopted a raft of specific GNSO policy recommendations for implementing new gTLDs. Amongst the key considerations for the introduction of new top-level domains identified were:

- Expanding the domain name space to accommodate the introduction of both new ASCII and internationalised domain name (IDN) top-level domains will give end users more choice about the nature of their presence on the Internet. In addition, users will be able to use domain names in their language of choice.
- Demand for additional top-level domains as a business opportunity. The GNSO Committee expected that this business opportunity will stimulate competition at the registry service level.

After extensive consultation, the ICANN Board authorised the launch of the new gTLD program in June 2011.

The new gTLD program's goals include enhancing competition and consumer choice, and enabling the benefits of innovation via the introduction of unlimited new gTLDs, including new open gTLDs, community based domains and internationalised domain name (IDN) top-level domains. A community-based gTLD is defined as 'a gTLD that is operated for the benefit of a defined community consisting of a restricted population.'³ All other domains fall under the category open gTLD, which 'is one that can be used for any purpose consistent with the requirements of the application and evaluation criteria, and with the registry agreement.

Described as a platform for the next generation of creativity and innovation, ICANN has opted to enable potential applicants to self-select strings that are either the most appropriate for their customers or potentially the most marketable. A number of potential

³ Applicant guidebook: <http://www.icann.org/en/topics/new-gtlds/rfp-clean-19sep11-en.pdf>

future trends as a result of new gTLDs have been identified. Entertainment and financial services brands are most likely to apply for new gTLDs for their brands (e.g. .ibm), according to a survey by registrar Melbourne IT.⁴ Industry analysts predicted 500–1000 new gTLDs,⁵ mostly reflecting names of companies and products, but also cities and generic names like .bank and .sport. Conceivably, the new gTLDs will allow corporations to better take control of their brands.

Geographic markers may also be beneficial for some marketing campaigns. For example, use of .sydney or .australia may be useful for the tourism industry, enabling hotels, attractions and restaurants to list in a format that is friendly to potential international visitors.

Any established entity located anywhere in the world will be able to apply to form and operate a new gTLD Registry. The initial price to apply for a new gTLD will be \$185,000, with an annual fee of \$25,000. This pricing of gTLDs may reduce the impact of the changes on .au domain names, which can be registered for an annual fee of less than \$100. Additionally, it is likely that avoiding consumer confusion may see those businesses that move to gTLD domain names retain their .au name and redirect traffic to the new site, at least in the short term (for example, www.restaurantname.com.au may reroute to www.restaurantname.sydney until consumers have adapted to the gTLD system).

Over the last decade, around 14 new gTLDs were created – including .info and .museum – with only limited financial success or uptake overall. While gTLDs such as .post and .mobi were expected at launch to be popular and widely used, such activity does not seem to have materialised. The reason for this is unclear, however it may point towards a low potential uptake of the new gTLDs about to come online. According to research commissioned by AusRegistry (2011), awareness of the new TLD program is low among SMEs, with less than 15% having accurate knowledge, indicating that, initially at least, uptake is unlikely to be high.

However, other parts of the new gTLDs may facilitate more diffusion in the types of domain names in existence. In particular, it is thought that the ability to use domain names in non-Latin scripts (for example, domain names in Arabic script) may see a greater uptake within countries and communities that do not use Latin characters. While this is potentially significant in countries where non-Latin script is used, this is not likely to have a substantial impact upon the .au domain range, as businesses seeking to leverage off an Australian presence are likely to persist with Latin scripts in their domain names.

One other factor that may motivate the use of the new gTLDs is the increasing scarcity of .com and .au domain names. This is due primarily to overall increased web presence by organisations and individuals, but in some cases may be due to spurious activity such as squatter registrations and the subsequent high cost of purchasing in the secondary market. As it becomes increasingly difficult to purchase suitable names in traditional domain name ranges, the popularity of gTLDs may increase.

⁴ <http://www.managingip.com/Article/2851692/News-In-Brief-Internet-IP/Who-will-apply-for-brand-gTLDs.html>

⁵ <http://www.washingtontimes.com/news/2011/jun/20/internet-minders-ok-vast-expansion-of-domain-names/?page=all>

In a survey undertaken for AusRegistry (2011), 13% of Australian small and medium enterprises indicated that they were 'very likely' to register a domain within one of the new gTLDs, while 28% were 'moderately likely'⁶. It is unclear within these statistics as to the motivation of these businesses – in some cases this may be because they are unable to obtain a suitable .au domain name from what remains available.

While the impact may not be profound, over the longer term .au domain activity may decline somewhat in response to the new options available to organisations when deciding where to locate their online presence.

4.2 Future trends in internet activity

4.2.1 E-commerce

E-commerce refers to consumers purchasing goods and services from 'clicks and mortar' online stores rather than in a traditional physical store. It presents large potential productivity gains to businesses through reducing supply chain length and reducing the need for physical stores with their associated costs. Conversely, it means Australian consumers are able to buy from retailers globally with ease, increasing price competition in the market.

Rapid growth in the rate of e-commerce in Australia over the coming years means that large changes to the Australian economy on the back of online retailing can be expected over the coming years. The increased use of m-commerce (purchasing using mobile phones), substantial increases in availability of e-commerce from traditional retailers rather than the new smaller organisations that have historically engaged with online retail, and forthcoming rollout of the NBN increasing accessibility to e-commerce are all expected to lead to a rapid expansion in the total share of Australian retail activity that takes place online.

The importance of .au domain names for Australian businesses providing e-commerce sales comes in two directions:

- The level of patriotism among Australian consumers; and
- The consumer assurances provided to consumers when buying from Australian businesses rather than foreign firms.

While many Australian consumers are price-sensitive enough that they will look to international sellers if they can provide goods at a lower price, others prefer to 'buy Australian' where possible. This is due to such motivating factors as supporting local jobs and primary producers, as well as potentially quality assurance in some cases. Through use of a .au domain name, businesses are able to send a signal to these patriotic consumers that they are an Australian business, thereby attracting more of this business.

Similarly, Australian consumers who buy goods and services from Australian businesses are provided certain safeguards around the quality of those goods and services. For example, certain guarantees that goods are of merchantable quality, meet certain safety standards,

⁶ The survey also asked about 'extremely likely' however the result for this was less than 1%.

and are the genuine article are provided when purchasing domestically. When goods are purchased more cheaply from overseas, however, that same assurance is often not provided. Again, the .au domain name as an indicator that these laws apply to the transaction is an important guarantee for local consumers.

4.2.2 The role of search engines

Search engines are increasingly used by consumers as the start point for research in a purchasing decision. Indeed, in the US studies have shown that search engines have now overtaken the Yellow Pages as the first source point for consumers when looking for information about local businesses⁷. Edelman (2011) reports that, when researching companies, search engines are the most common first information source (of all online and print options) that global consumers turn to, with 29% of survey respondents using it as their first source of information and a further 16% as their second source of information. In comparison, just 11% cited the company's website as each their first and second source of company information.

While the company website is still clearly important for attracting business, it seems clear that simply setting up a website and leaving web presence there will not provide the full benefits of online marketing. The growth in firms providing search engine optimisation services – that is, the use of key words and phrases to help boost the position of a company's website in search results – provides an indication of the importance of search engines for developing a business' online profile.

The importance of Google and search engines to consumer research means that a full web presence – i.e. a dedicated website, rather than reliance upon online listings through Yellow Pages and other sites (e.g. True Local) – is critical for online business marketing. Consumers doing online research are less likely to phone a business whose only online presence is contact details than they are to visit the website of a business with a full online presence. Similarly, the increase in online consumer review sites, such as Trip Advisor, mean that, without a business website, search engines may find consumer reviews or similar as lead results, leading to the potential for consumers finding unduly unfavourable information that may hinder rather than help marketing of the business.

4.2.3 Social networking

Social media – Facebook, Twitter and the like – are becoming an intrinsic part of modern social lives. In order to connect with consumers, especially in younger demographics, businesses have increased their brand presence on social networking through 'pages', accounts, ads, and promotions. The ability for businesses to create a page that is 'liked' by consumers, and then shared to that individual's profile, which is viewable by all their friends, creates a powerful marketing tool for businesses at negligible cost to the business.

While this facilitates quick diffusion of brand name and improves awareness, typically these social media pages only provide fairly limited information about the brand itself. Most of these pages still ultimately link consumers back to their main website for greater detail, online ordering, and so on. This means that, rather than reducing the need for a distinct .au

⁷ http://www.bizreport.com/2009/02/study_consumers_now_use_search_engines_over_yellow_pages.html

web presence, use of social networking as a marketing tool actually increases the importance of a business website. Over time it may be expected that websites such as Facebook will develop more in-house e-commerce capabilities that reduce this imperative.

However, most of those industry experts consulted with in the preparation of this report do not anticipate that intra-Facebook e-commerce capability will do away with the need for a corporate website for larger firms; rather they anticipate that these Facebook solutions will be suitable only for 'cottage industry' businesses. The overall expectation is that Facebook e-commerce will be mostly selling among friends.

One social networking area which demonstrates the potential of such changes is the recent explosion of 'daily deals' websites (e.g. LivingSocial, Scoopon, Cudo etc). These websites offer daily specials in the local area of their members, providing often large discounts without any need for the consumer to visit the website of the business providing the discount. While these sites have had some teething problems in terms of delivery of some paid-for items⁸, this business model provides an insight into how e-commerce may change as Facebook and other social networking sites develop the ability for on-site payment processes.

⁸ See <http://www.smh.com.au/business/media-and-marketing/group-buying-sites-miss-the-market-20111006-1lbp.html>

5 Conclusions

The total economic contribution of the .au domain name registration and operation in Australia is estimated at \$475 million for 2010-11 (see Table 5.1). Of this, 58% of the total value added accrues to employees, indicating an overall relatively labour-intensive industry.

Table 5.1: Total contribution, .au domain name system

	\$m (2010-11)
Wages	275.7
Gross Operating Surplus	199.1
Total value added	474.7

Source: Deloitte Access Economics estimates

Table 5.2: Total employment, .au domain name system

	FTE employees
Direct	2,744
Indirect	1,583
Total	4,326

Source: Deloitte Access Economics estimates

The sector accounts for a total of 4,330 FTE positions in the economy. Of these, 63% are directly associated with the industry, with a smaller number of flow-on positions.

While the new gTLDs coming online in 2012 may reduce demand for .au domain names somewhat as new options become available to businesses looking to register a domain name for the first time, a range of consumer preferences – including the rapid growth in e-commerce and marketing merit of .au as a signal that a retailer is Australian, the increased importance of search engines in consumer research, and the importance of social media as a marketing tool – will help to ensure that demand for .au domain names continues into the future.

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Appendix A: Economic contribution framework

All economic entities create and support an economic foot print. The size of the foot print is dictated by the demand for other goods and services provided by suppliers in the rest of the economy.

The aim of economic contribution studies

Economic contribution studies are designed to account for total value added generated by an economic entity or class of persons in their trading activities. A nation's gross domestic product (GDP) is equal to the sum of all value added by entities operating in an economy. Therefore the value-added by an area of activity like the cruise sector, such measures their contribution to GDP. There are many ways of measuring value added. This study measures value-added using an income approach that relies on estimates of income earned by capital owners and wage earners.

Along with the value added, contribution studies also measure the flow-on profits, wage income, employment as measured in full-time equivalents (FTEs) and the total value of transactions generated by an entity's trading activities.

Generally speaking, the aim of contribution studies is to measure the immediate impact on GDP of an entity's activities and not the broader social benefits (or costs) that may result from that activity.

Measures of economic contribution

There are four widely used measures of economic activity. Each tells a different story about the economic contribution of an industry.

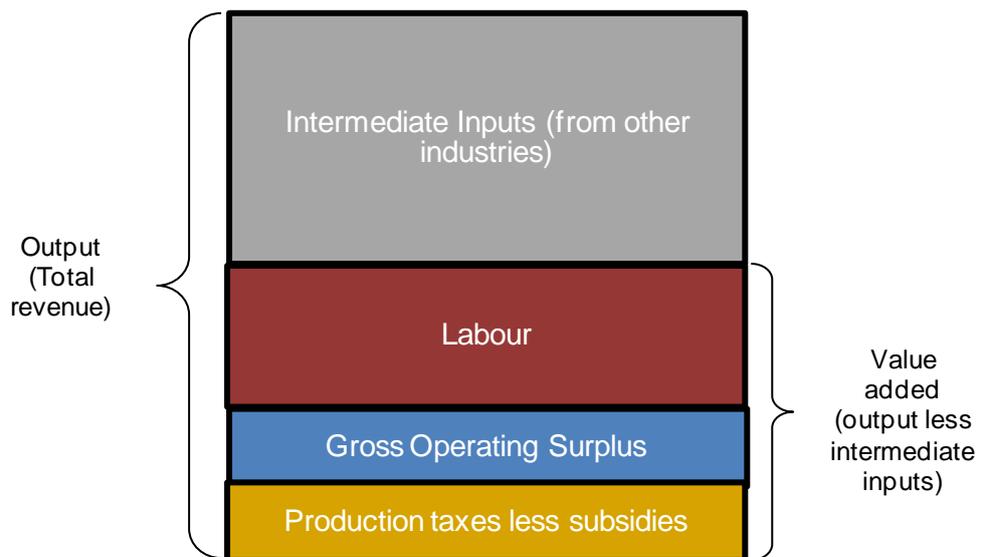
- **Value added** measures the value of output generated by factors of production (i.e., labour and capital) employed directly or indirectly by an entity. An entity's value added is typically measured by the income accruing to its factors of production. The sum of value added across all entities in the economy equals GDP. Given the relationship to GDP the value-added measure can be thought of as the increased contribution to welfare. In summary the value added is the sum of:
 - **gross operating surplus (GOS)** which represents the value of income generated by the entity's direct capital inputs. This is generally measured as the Earnings Before Interest, Tax, Depreciation and Amortisation (EBITDA);
 - **plus tax, less subsidies** provided for production, which generally includes company taxes and taxes on employment. Note, given we calculate the returns to capital before tax (EBITDA) we do not include company tax here or this would double count that tax; and
 - **labour income** which is a subcomponent of value-added. It represents the value of output generated by the entity's direct labour inputs, as measured by the income accruing to labour.

Other popular measures of economic activity include:

- **gross output** which is the total value of goods and services sold by an entity. This is a broader measure than value-added because in addition to the value-added generated by the entity, it also includes the value of intermediate inputs used by the entity that flow from value added generated by other entities; and
- **employment** which is a fundamentally different measure of activity to those above, since it measures the number of workers that are employed by the entity (typically in terms of full-time equivalent workers).

Figure A.1 provides a summary of the components that make up gross output. Gross output is the sum of value added and the value of intermediate inputs. As discussed above, it is a wider concept than value added. Value added can be calculated directly by summing the payments to the primary factors of production, labour (i.e., salaries) and capital (i.e., gross operating surplus, 'GOS', or profit), as well as production taxes less subsidies. The value of intermediate inputs can also be calculated directly by summing up expenses related to non-primary factor inputs.

Figure A.1: Economic activity accounting framework



Source: Deloitte Access Economics

Direct and indirect economic contribution

Using the accounting framework in Figure A.1, the value added created by labour and capital inputs employed directly by the entity is its direct contribution. In the case of the cruise industry, the direct contribution equals the income earned by employees as wages and the profits generated by the cruise industry.

Intermediate inputs generate flow-on or an indirect contribution via the activity created in other sectors. The size of this flow-on activity is dictated by the extent of linkages with other sectors of the economy. The measurement of an entity's indirect economic contribution relies heavily on the input-output structure of the economy.

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Contact us

Deloitte Access Economics
ACN: 49 633 116

Level 1
9 Sydney Avenue
Barton ACT 2600
PO Box 6334
Kingston ACT 2604 Australia

Tel: +61 2 6175 2000
Fax: +61 2 6175 2001

www.deloitte.com/au/economics

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