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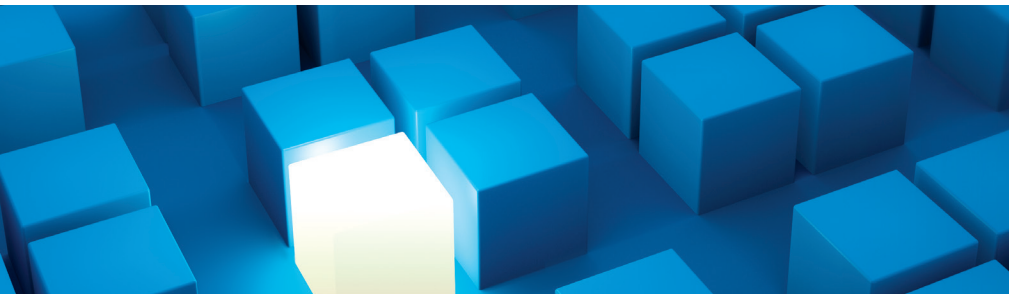

Levelling the Playing Field:

The Role of the Internet and Mobile Computing in Improving the Efficiency and Competitiveness of Australian Small Business

Insight in Economics™

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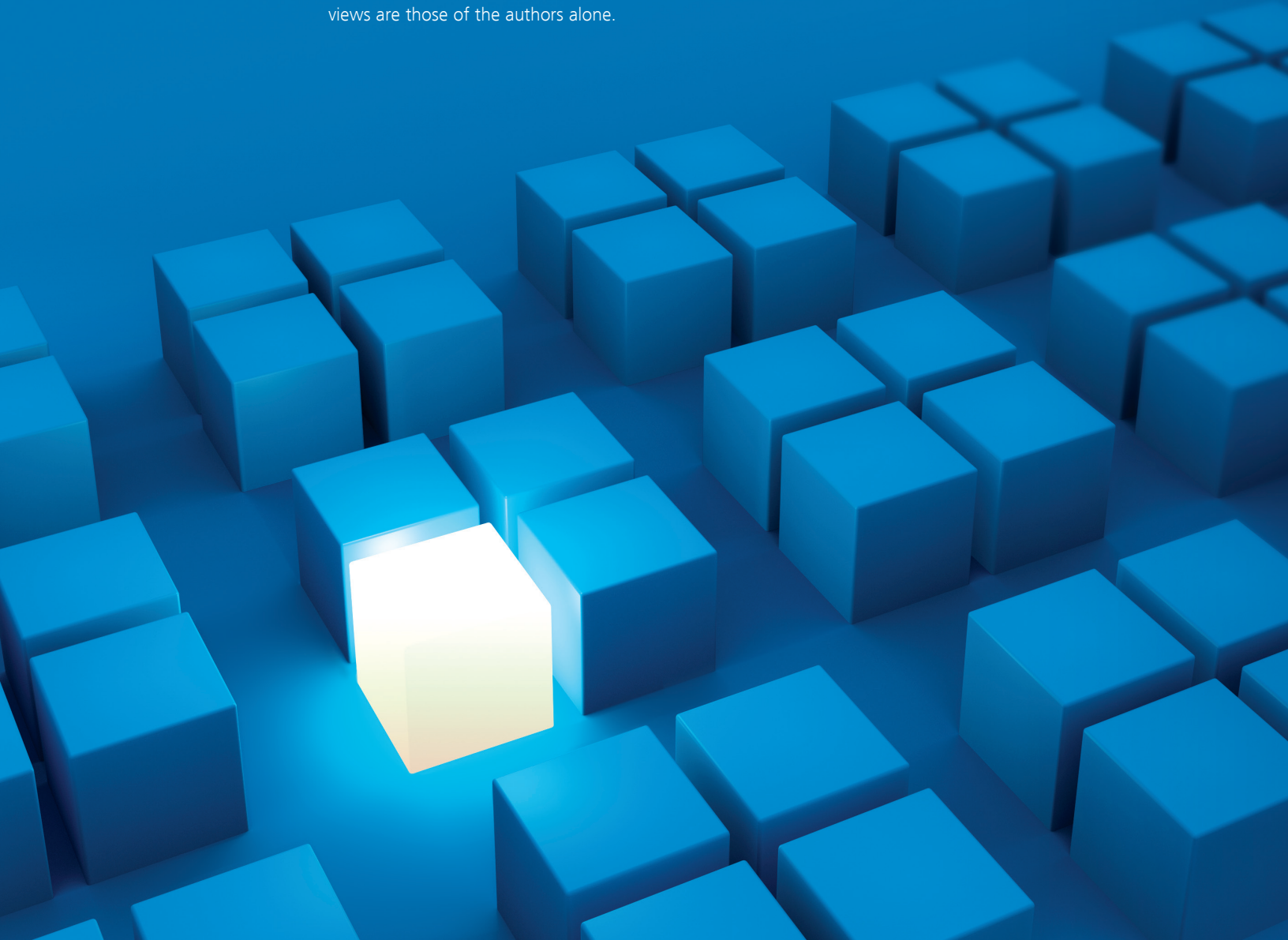

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Key Points

Small businesses have traditionally faced a variety of impediments to entering markets and expanding their businesses. These include:

- Financing upfront, fixed (and potentially sunk) costs (for example, on advertising, accounting systems and physical space) before earning revenue from sales;
- Competing against larger firms who enjoy economies of scale;
- Establishing a brand and raising customer awareness;
- Providing customers with the information (for example, about quality, product characteristics and price) to encourage them to switch; and
- Obtaining access to distribution channels.

The internet and mobile computing have reduced these impediments by:

- Turning some upfront, fixed costs into variable costs (for example, using cloud-based accounting software);
- Reducing the need for physical space;
- Reducing the costs of providing information to customers, and enabling targeted interactions;
- Lowering search costs and the costs of switching to alternative suppliers;
- Creating new distribution channels; and
- Allowing for disintermediation and direct sales.

As a consequence, the continued growth and development of the internet and mobile computing has helped:

- Australian small businesses to be more efficient, and to find it easier to enter markets and expand their businesses;
- The markets in which small businesses operate to be more competitive; and
- Consumers in these markets to benefit from increased variety, quality, and lower prices.

Competition policy should be mindful of the significant impacts the internet and mobile computing are having, and are likely to have, on the ability of small businesses to compete, and on the further structural change this will create in markets over years to come.

Executive Summary

The internet has changed the dynamics for many small businesses, increasing their competitiveness against larger players. Someone running a small business today is empowered by a new operating environment that has completely transformed from just ten years ago. Traditional impediments that smaller players faced when entering markets, expanding their business or competing with big business have been reduced by the internet and mobile computing in three key areas— connecting with customers, brand awareness and quality, and costs.

Connecting With Customers

The internet has allowed small businesses to more effectively interact with potential customers, through websites and social media. The internet has also lowered the cost for small businesses of creating product offerings based on consumer interests, and of analysing data, making it easier for small businesses to grow.

Furthermore, the internet and mobile computing have extended the geographic reach of small businesses, increasing their potential customer bases.

Accordingly the internet has alleviated impediments that small businesses traditionally faced in connecting with customers, such as a lack of economies of scale in advertising or a large physical footprint.

Brand Awareness and Quality Signalling

The internet has helped small businesses to raise brand awareness and signal the quality of their products or services. They can use online channels to create brand value at low cost with information on quality and reputation, which are influential on consumer purchasing decisions. Both activities were traditionally expensive, often requiring upfront costs before significant sales occur, creating both cash flow and resourcing issues for new entrants or smaller companies.

Costs

The internet can lighten the overall cost burden on small businesses, making it easier for them to get started and to expand. They can use the internet to establish an online presence before investing in a physical space, reduce internal operating costs with cloud technologies, access cheaper finance, and use online as a significantly cheaper direct sales channel. This helps to alleviate the traditional cost disadvantage that small business and new entrants face compared to bigger and established players.

Internet-Facilitated Platforms and Tools for Small Businesses

The internet has also catalysed the birth of new platforms, such as auction and trading websites, that connect buyers and sellers and so enable small businesses to better compete in their respective markets. These platforms:

- Expand the reach of small businesses, and diversify sales channels;
- Reduce the costs (cash, transaction and opportunity) of bringing sellers and buyers together, creating more welfare enhancing transactions; and
- Lower the costs of entry and expansion for small businesses.

Conclusion

In our view, competition policy should be mindful of the significant impacts the internet and mobile computing are having, and are likely to continue to have, on the ability of small businesses to compete, and the further structural change this will create in markets over years to come.

1. Introduction

The introduction of computing power to the every-day tasks faced by businesses has caused a fundamental shift in worker and firm productivity. Early adopters were large businesses, who reaped the benefits of technology by investing in infrastructure and training for their workforces. The recent explosion of more user-friendly and lower cost technologies facilitated by the internet and mobile computing, such as website design applications, smartphones and social networking, is enabling mass adoption of information technologies and more accessibility to businesses without the need for deep corporate resources.

This in turn is changing the competitive environment for small and large businesses alike. Competition from small businesses is putting pressure on larger businesses to lower costs and improve services, creating more competitive markets, with the corresponding benefits flowing to consumers.

This study explores the ways in which the internet and mobile computing have enabled small businesses in Australia to operate more efficiently and to compete more effectively in their markets.[1] Small businesses have traditionally faced a variety of impediments to entering markets, expanding their businesses and competing with larger firms. This paper discusses how the internet and mobile computing have reduced these impediments, and provides examples.

The focus of the paper is on small businesses operating in "traditional" markets, and how the internet and mobile computing have affected their ability to compete.[2] Examples of such small businesses include the corner butcher or a family-owned pharmacy, an electrician, a small professional services firm or a small manufacturer. It is not the purpose of the paper to analyse small businesses that have been formed to provide services in new, "high tech" markets catalysed by the internet and mobility, although clearly these firms have been affected by the internet and mobility.

We begin with a brief overview of the empirical studies of how Australian small businesses use the internet and mobile computing (section 2). Sections 3 to 6 discuss the role of the internet and mobile computing in improving the efficiency and competitiveness of small businesses. Section 3 describes how small businesses connect with customers using the internet and how the internet and mobile computing have reduced advertising and search costs for small businesses. Section 4 discusses how small businesses can use the internet to lower the costs of branding and to signal their quality to customers. Section 5 identifies some of the upfront costs faced by small businesses, and how the internet and mobile computing have reduced these costs. In each of these sections, we provide examples of Australian small businesses that have overcome these challenges and have been able to expand their sales using the internet and mobile computing technology. For each of sections 3 to 5, our approach is to:

- Identify the potential impediments to entry or expansion faced by small businesses, for example, the need to finance the fixed costs of retail space before material volumes have been sold;
- Describe how we would expect the internet and mobile computing to affect these impediments, for example, the ability to sell online without a physical space; and
- Illustrate the impact of the internet and mobile computing using actual Australian examples.

Section 6 profiles internet-based businesses that provide a platform for small businesses to more effectively reach their customers and to compete in their own markets.

2. The Revolution in Internet and Mobile Computing for Small Businesses

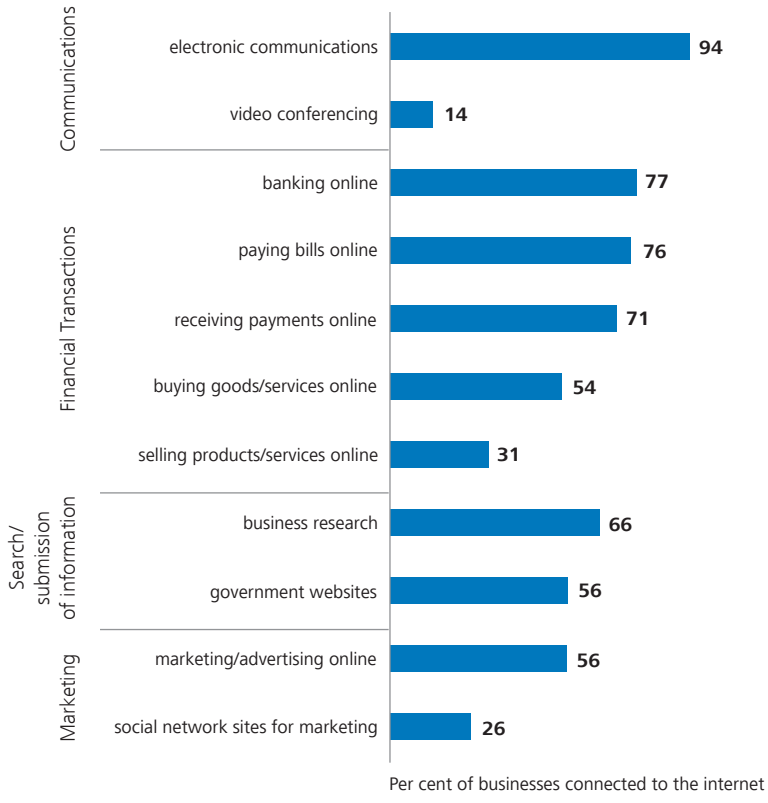
The internet can be thought of as a platform that enables:

- Dramatically increased information flows; and
- The development and use of a variety of tools for businesses and consumers.

A number of empirical studies describe how Australian small businesses use the internet and mobile computing. These studies confirm that the internet and mobile computing have dramatically enhanced the way businesses and customers share and exchange information in a way that has helped small businesses to reduce their costs and to more effectively connect with their customers.

A 2014 report by the Australian Communications and Media Authority (ACMA) described how small and medium enterprises (SMEs) are key drivers of the digital economy.[3] The following chart from that report illustrates the variety of ways in which small businesses use the internet.

Figure 12. **Activities performed online by SMEs**

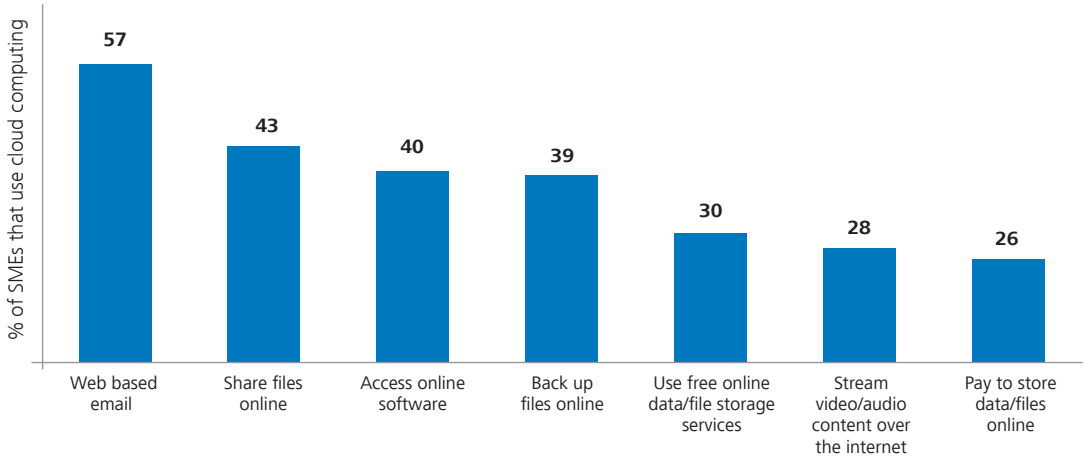


Source:
ACMA (2014) "Australian SMEs in the digital economy", Communications report 2012–13 series, Report 1.

The ACMA study found that 64% of internet-connected SMEs have their own website. SMEs are also responding to the shift to mobile computing. As more consumers collect product information and make purchases through their mobile devices, mobile access is increasingly important to the functionality of a website. The study also found that 18% of SMEs had a mobile-optimised website, a figure that had doubled from the last survey in 2012.

Another ACMA report[4] sets out the results of a May 2013 survey on how Australian SMEs use cloud computing, as illustrated by the following chart. Not surprisingly, the main use of cloud computing is for email hosting, but over a third of businesses are using cloud-based services to share files, access software and backup their files.

Figure 6. **SME use of cloud computing services, May 2013**



Source:
ACMA (2014) "Cloud computing in Australia", Communications report 2012-13 series, Report 2.

A survey for Yellow Pages by Sensis looked at how businesses are using social media.[5] The report was based on a survey of businesses across Australia over February to April 2014. The survey found that 36% percent of small businesses (less than 20 employees) have a social media presence, and that this has been growing rapidly since 2011. It also found that 48 percent of medium sized businesses (20-199 employees) have a social media presence, and that this percentage has been growing.

Proportion of businesses that have social media presence

Proportion of businesses that have social media presence	2011	2012	2013	2014
Small	14%	27%	30%	36%
Medium	25%	34%	47%	48%
Large	50%	79%	79%	77%

Base: Total sample (1447) / (353) / (150) Q. Does your business have a social media presence? This might include having a Facebook page, being active on Twitter, MySpace or LinkedIn, having a blog, hosting forums or having a social media based rating system?

Source: Sensis (2014).

3. Connecting With Customers

Before the internet, small businesses connected with customers (and suppliers) through a physical or verbal interaction generated by traditional advertising strategies. The effectiveness of many traditional methods of advertising required a business to be located in close proximity to its customers. For larger firms and firms with more resources and scale, the costs of advertising can be spread across a larger base of sales. But for smaller businesses and businesses with a narrower geographic footprint, advertising is a fixed cost that is spread across a smaller sales base, which means that small businesses must make a choice between investing less in advertising or operating at a higher average cost.

The internet has enabled small businesses to connect with customers more efficiently. For example, businesses can get customer feedback more quickly, introduce new product lines more easily, and interact with their customers in real time. Moreover, with respect to getting real-time information about customer needs and demands, small businesses now have access to the same quality of information that was previously accessible at a lower cost and sooner by larger firms.

Indeed, one of the main benefits of the internet has been to increase the information that is available to small businesses on a wide range of subjects and to allow small businesses and customers to find and access the information they need more cheaply and easily. For consumers, "search costs" include the time and effort needed to find and access information on businesses and the products they are looking to purchase. For businesses, search costs include the time and effort they need to find and access information about their markets so that they can price their products competitively, offer products that meet customer needs, and innovate to respond to changes in the marketplace. The internet lowers search costs by providing businesses and their customers a way to find and access better and more market data and information, such as the products that are available and the prices at which they are being sold.[6, 7]

Internet access through mobile devices also has permitted consumers and businesses to access the information they need at a very low cost and from virtually any location with an internet connection. For example, a study by Nielsen[8] found that once a consumer has committed to buying, the research on price and product availability that is conducted on a mobile device was an influential factor in determining where that customer chose to purchase the product. Specifically, the study found that while they were in a store, 42% of smartphone owners used their mobile devices to obtain more information about a product before actually purchasing it.

Lower search costs have enabled small businesses to connect with customers more efficiently. With the internet and mobile computing, small businesses often have access to the same quality of information related to customers and potential customers as do larger firms. Moreover, small businesses can find and get important market data and information sooner, which enable them to respond to customer demands more quickly and to win business away from their competition, including the large businesses that already had this market data and information.

Increased information also has helped to create business platforms and marketplaces where buyers and sellers can find each other.[9] One good example is eBay, which we discuss further in section 6.

Small businesses have been using the internet to provide detailed information about their products and services to potential customers. They can create company or product webpages and design those sites to appeal to potential consumers. They can focus their online advertising on individuals most likely to be interested in their products through the use of search or display advertising. Furthermore, small businesses are using social media to enhance the benefits of traditional word-of-mouth advertising. Each of these approaches helps connect customers seeking specific products or services to the suppliers of those services, while avoiding expenditure on marketing to non-interested parties in a way that mass advertising cannot.

One of the more obvious advantages of having a web presence is the ease with which a business can more easily find and direct customers to their business. Thus, websites often include interactive maps that provide a route (and time estimate) to help a customer get from his or her location to that seller. This is particularly useful with the advent of mobile computing. For example, consumers can find businesses selling certain products near their current location (determined using GPS). As another example, a consumer can identify a restaurant of interest, determine its location, review the menu, and book a table, all over the phone.

By making information available anytime, anywhere, mobile computing further reduces the transaction costs of obtaining information. Without mobile computing, consumers and business could obtain information from the internet only at set physical locations, and by extension, times.

The internet also has lowered the cost of collecting information about customers and potential customers, which has enabled small businesses to react to market conditions more quickly and to more efficiently identify and serve new markets. Tools such as Google Analytics[10] provide information about customers that visit a website, information that was previously difficult to gather. Other products such as Survey Monkey allow businesses to obtain formalised feedback from customers and potential customers at very low cost. Previously a business might engage a market research firm that would conduct a survey, which might involve phone interviews or mailed surveys. Or the business might rely on feedback forms in its physical premises (if it has one). Neither of these solutions is particularly targeted and involves higher transaction costs for the consumer than filling out an online survey in their spare time. Survey Monkey also has an additional feature called "Survey Monkey Audience".[11] This allows surveys to be targeted to an audience meeting specific criteria, allowing businesses to survey only a particular market segment of interest.[12]

Therefore the internet has made it is easier for small businesses to obtain both broad based and specific feedback. This improved information flow enables small businesses to react to market conditions and potentially identify and serve new markets in the same ways that they reach new customers in existing markets.

The internet and mobile computing provide the potential for small businesses to find information more quickly about new business opportunities and to perform the necessary market research with greater precision. The internet enables small businesses to research customer preferences through, for example, the use of real-time customer surveys as they make their decision about whether or not they should enter a new market. Before, these tools were available only to larger firms, and real-time customer information would have been a key advantage for larger firms that were already in the market.

The internet, and in particular cloud computing, also makes it easier for small businesses to use data in their decision making. As we discuss more in section 5, cloud computing means that small businesses do not require the computing power or software in-house to analyse data themselves as they have access to these tools in the cloud, materially lowering costs. By lowering the cost of using data to inform decisions for small businesses, it is more likely that "data-driven innovation" will occur,[13] which in turn enhances the competitiveness of small businesses.

In addition to the forms of online advertising discussed above, the internet allows small businesses to market to potential customers through "group buying" websites that offer special discounts using sites like Groupon and RedBalloon. These websites consolidate discount offers on a variety of products and services. These services allow small businesses to build their customer base, tailor their products to more price-sensitive consumers and reduce the risk of entering a new market.

Examples

Pad Stick's Homemade Ice Cream Company Uses the Internet for "Electronic" Word of Mouth

Pat and Stick's Homemade Ice Cream Company is a small ice cream producer based in Sydney that specialises in "ice cream sandwiches"—ice cream sandwiched between homemade cookies. The company started in 2004 and first sold its products at the Balmain markets in Sydney. The business now sells its range of ice cream products in all major cities in Australia and has recently started selling in Singapore.

Pat and Stick's business uses the internet to promote its products and directly interact with customers. Its website provides information on its ice cream flavours,[14] where to buy the products and background on the business, including a video of the owners and establishment of the business. The company does not sell its stock through its website, but rather distributes it through specialty retail outlets.

The business uses social media and its website to engage with its customers, running competitions and posting personal messages. For example, it recently ran a competition to design a new flavour for its "Flavour Labs" experimental ice cream flavours. Another competition involved asking fans why they love ice cream sandwiches, with the most creative answers winning prizes.[15] In this sense the business is using its customers to help with its product development and marketing. The company provides regular updates to its customers through a blog and by emailing newsletters to subscribers.

Moonraker Dolphin Swims Uses the Internet to Connect With Customers Outside Australia

Moonraker Dolphin Swims is a tourism charter company that offers sightseeing boat tours and opportunities to swim with dolphins and seals, based on Port Phillip Bay, Melbourne. Moonraker is a family-owned business established in 1990, and is now Australia's largest dolphin swimming business.[16] Its customers are both domestic and international visitors, with the latter including tourists from south-east Asia, the northern European cruise ship market (particularly Germany and Netherlands) and the United States.[17] Moonraker is a good example of how a small business with a largely local presence has used the internet to expand its business and broaden its customer base.

Moonraker has its own website, through which tours are able to be booked online.[18] It is active in social media and its advertising is mostly on the internet and television and through blogs.[19] It was also an early adopter of discount "group buying" websites, which has allowed it to build revenue streams in slower periods.[20] In recent years Moonraker has seen substantial growth, doubling turnover from 2009 to 2012, while growing passenger numbers from 5,000 per annum to 14,000 over the same time period.[21]

Food Trucks Use the Internet and Mobile Computing to Provide Location Information to Customers

The rise of the food truck has been described as an "urban street revolution"[22] that has been boosted by the internet. Food trucks have been around for a long time. Before the internet and mobile computing, a food truck would park in a public space such as a park or a construction site and the customer base was whoever happened to pass by. As a result, there was an information gap: for consumers to know the location of a particular truck, the truck would have to be based at a specific location all the time or have a rigid, repeated schedule. Either way, it would lose the benefit of mobility, for example, the ability to park at the beach on a sunny day, or to park near an event.

Now, food trucks can post their locations online (via social media, their own website or specialist apps or websites such as http://wherethetruck.at and http://www.sydneyfoodtrucks.com.au/) and customers can seek them out.[23] While restaurants have a fixed location, food trucks can serve multiple geographic areas and can spread the risk that customers will tire of their product through over-exposure. Also, the internet allows entry without the large fixed costs of fitting out a bricks and mortar restaurant.

An example of a food truck that has used social media is the Taco Truck.[24] For other examples, see the wherethetruck.at directory which currently lists 149 trucks in Australia.[25]

4. Brand Awareness and Quality Signalling

Businesses invest in brands to signal or portray a certain quality or reputation. Branding can also be used to differentiate products and raise margins on those products.[26]

Developing a brand entails sunk investment,[27] for example, expenditure on advertising. Because this investment often takes place before significant sales of product, it raises cash flow and risk issues for small businesses and entrants, as well as a cost disadvantage compared to larger and established players with existing brands.

It is likely that the internet and mobile computing have assisted smaller firms to raise their brand awareness. Websites can be used provide information on the quality of the product and to provide background on the owners. Other techniques include the use of blogs and podcasts, and emailed newsletters. Social media tools that facilitate information sharing and enhance customers' relationship with the brand also deepen customer loyalty.[28]

Another, related, difficulty faced by small businesses is persuading consumers of the quality of their products. The seller of a product typically has more information on the quality of the product than does the buyer,[29] which can make the buyer wary. This problem is exacerbated for some small businesses because the buyer cannot rely on how long the small business has been operating or general consumer acceptance as a signal of the small business' quality of product or service. The internet and mobile computing have improved consumer information on quality and reputation, helping to mitigate this type of information problem.

One way to build a reputation for quality is to provide a long-run consistent product or service. However, longevity is not the only relevant quality signal. Internet-based reviews can provide an easy platform for customers to give product feedback to both the supplier and other customers. Since it is increasingly easy to respond to feedback requests, more customers are doing so. This reduces the likelihood of biased results, and provides immediate information to other consumers who may be in doubt about a new product.

The business itself might facilitate customer reviews, on its own website, for example. E-commerce platforms like BigCommerce and Neto (which we profile in Section 6) enable this as a built-in feature. Alternatively reviews might be found on interest-focussed forums,[30] online retailer websites or specialist review sites.

Examples

Suzy Spoon's Vegetarian Butcher Has Built Its Profile Using the Internet

Suzy Spoon's Vegetarian Butcher makes and sells a range of vegan sausages, burger patties, schnitzels and other vegetarian products.[31] The business targets customers with specific dietary preferences and connections to those customers are critical to its success. Suzy Spoon's launched at Marrickville Organic Farmers Market in 2012 and within 4 months had built a sufficient customer base to justify moving to a shop in Enmore and then to Newtown, a suburb of Sydney. The business has successfully used the internet to find new business opportunities and build a strong customer base in the vegan and vegetarian community of Sydney and across Australia. Customers have reportedly driven from as far away as Queensland just to visit the store and the company is experiencing a growing number of online orders, particular to regional areas.

The business has a website which provides information about its products, allows customers to purchase products online and gives customers recipes. The company also uses social media, and estimates that one-quarter of customers have come as a result of something Suzy Spoon's has posted on social media.[32] Its website and social media have allowed the business to connect with customers and build a brand identity that would have been more difficult without the use of the internet. Suzy Spoon's also uses social media to gather and respond to customer feedback,[33] and to inform customers of the locations where Suzy Spoon's products are stocked in different regions around Australia. The company estimates that one-quarter of customers have visited its store as a result of something Suzy Spoon's has posted on social media.[34] The online presence has played a key role in expanding its customer base, with sales of sausage packets rising from 12 to over 100 per week, and reaching over 8,000 "likes" on Facebook within one year.[35,36]

Review Sites Reduce Information Asymmetries

The asymmetric information problem described above is a particular concern in the services industry. Consumers often have concerns about the quality of the work that will be performed by tradesmen, and the price they will be charged.[37] For example, the term "cowboy builder" has been coined to describe incompetent and dishonest builders.[38] These concerns, whether they arise in the services industry or elsewhere, can make it difficult for smaller businesses to compete against those with a "corporate brand" that might convey quality.

Combating these concerns requires information about the reputation of the provider and also a way to easily compare quotes for work. The internet has made it easier for consumers to find information on products and services, even those only offered at a local level. Survey research by Sensis has found that 67% of all internet users read online reviews or blogs before making a purchase, and on average people would expect to read 3 reviews before making a purchase decision.[39] Focusing specifically on online purchases, PwC research finds that 95% of Australian shoppers conduct research (reviews, price comparison, etc.) before purchasing a product online.[40]

For small businesses like builders, plumbers and electricians,[41] a new type of site has emerged where customers can post reviews of businesses they have used before. Sites such as http://www.servicecentral.com.au/, http://www.truelocal.com.au and http://www.womo.com.au act as directories which are generally free for businesses to join.[42]

They allow consumers to search for businesses in their area and read reviews and ratings of those businesses left by previous customers. For example, over 400,000 reviews have been posted on the WOMO site.[43] Some of these sites provide a quote service whereby a customer can provide details of a job and receive three quotes through the site. This lowers the transaction costs of price discovery. On ServiceCentral, this feature has been used to post 391,616 jobs with a value of over $1 billion.[44] Repeated interactions with the same customers or potential customers mean that review sites have an incentive to protect the integrity of their brand and put in place systems to eliminate fake reviews.

Anecdotal evidence provided by the case studies on these sites[45] suggests they allow businesses to be rewarded for doing quality work (through higher sales due to their good reputation). See, for example, the following from the WOMO review platform website:

We are proud to be part of our users' success!

Review sites have made competition more effective by:

- Allowing businesses to establish a reputation for quality at low cost (the alternative might be to invest significantly in branding);
- Reducing the search costs for customers in terms of finding quality businesses in their geographic location; and
- Reducing the transaction costs of making price comparison by automating the process of obtaining multiple quotes.

5. Costs

5.1 Reducing Fixed and Transaction Costs

Smaller businesses and entrants can be at a cost disadvantage to larger businesses and incumbents. For example, larger, established businesses may enjoy economies of scale, and may already have sunk investments in place.

Cost asymmetries between large and small firms can make it harder for the smaller firms to compete. Furthermore, cost asymmetries may result in barriers to entry, deterring entry in the first place.[46] Therefore a reduction in cost asymmetries between small and large businesses will increase the ability of existing small businesses to compete more effectively and to make entry by new firms more likely.

The need for a small business or entrant to make an upfront investment before they make significant material sales of their product can lead to cash flow problems and increase the financial risk that the firm must bear. In addition, if these costs are sunk they can constitute a barrier to entry.[47] Therefore the ability to spread, or turn fixed costs into variable costs (for example, through leasing rather than owning equipment) can make entry for small businesses easier.

The internet and mobile computing can reduce these cost asymmetries. Internet sales reduce the necessity for an upfront investment in physical space, which represents one of the largest up-front costs in a traditional business model. With internet sales, a company may be able to forego a physical location entirely or wait to build one until a customer base is established. Using market intelligence gained from actual customers may help a company select an optimal physical location, resulting in more foot traffic, fewer unwanted products and less waste. These efficiencies reduce start-up costs risk and the initial investment that small businesses make on entry. The internet also can provide small businesses with a more efficient, focused approach to reducing the costs of waste and uncertainty.

The internet has provided tools that small businesses can leverage to reduce their operating costs, particularly fixed costs. Reducing fixed costs means that having scale is less important, and enables firms to better match cash inflows and outflows. With the internet, small businesses have access to a growing number of online accounting, HR and IT services on a "variable" basis, by which we mean that small businesses are charged a monthly or a per user/seat fee to access the software they need. This enables small businesses to receive the same level of support without internally developing the necessary specialty skills (and incurring significant upfront costs) or contracting with multiple specialists, such as bookkeepers, accountants, HR specialists and IT specialists.

Software developers also have been focusing their efforts on developing more software products (apps) for mobile users and small businesses. In general, these apps provide small businesses with a variety of alternatives for managing their businesses that might previously have required contracting with multiple specialists, such as book keepers, accountants, HR specialists and IT specialists. Time keeping, accounting and inventory systems reduce the amount of technical expertise and system maintenance required to run a business. Cloud storage and file sharing reduces the necessity for proprietary hardware. There are many new banking alternatives that lessen the costs of each transaction. In addition, as a result of mobile computing, these apps can be accessed in any location, which for some businesses can eliminate or reduce the need to have physical premises. For example, banking, which can be done online and via mobile apps, shows how the internet and mobile computing have reduced transaction costs for both small businesses and consumers.

Many of the benefits we have described in this section are achieved through what is known as "cloud computing", including software that is hosted and run on remote servers, which the customer accesses through a web browser or app. This allows information to be accessed anywhere via the internet and powerful computing power/complex applications can be accessed using relatively simple devices. Through the use of cloud-based software, businesses may be able to operate "paperlessly," which reduces the cost of storing information. The cloud also may enhance the search for and retrieval of information, which also should result in further time savings for businesses.

Table 1 below presents some examples of cloud software that has helped to reduce and/or turn fixed costs into variables costs for SMEs and also allow them operate more efficiently. Many of these services also integrate with each other.

Table 1. **Examples of cloud software that allow small businesses to operate more efficiently**

Service	Examples of providers	Description
Cloud accounting	Xero (www.xero.com), QuickBooks Online (www.intuit.com.au/)	Cloud accounting software allows business to manage their accounting online. Other features include the ability to generate and send invoices automatically and linking to bank accounts to provide automatic reconciliation and coding of transactions.
Online Point-of-Sale (POS) software	Vend (www.vendhq.com), Imonggo (www.imonggo.com) and Kounta (www.kounta.com)	Cloud based point-of-sales software replaces the traditional cash register with software on a tablet app or computer web browser. This allows business to track sales, manage inventory, add new products and manage customer loyalty programs from anywhere. Allows mobile or internet payments through PayPal as well as traditional methods (cash/credit/debit/gift cards, etc.).
Cloud office apps	Google Apps, Microsoft 365	Provide word processing and spreadsheet software over the internet. Because the software is run over the cloud, businesses do not need to invest in and maintain expensive computers to run the latest software.
Cloud storage	Dropbox, Google Drive, Microsoft OneDrive, Box	Cloud storage allows users to store, access and manage files and other data from remote servers using the internet. This reduces the need for and cost of home-based backup such as administrative staff who are needed to access physical customer files in an office for a salesperson who is "on the road." Rather than investing in their own storage, using cloud storage allows businesses to scale their storage needs incrementally and efficiently by sharing hardware with other customers of the cloud provider. This allows small businesses to enjoy economies scale even when they are small.
Payroll	Keypay (Kepay.com.au) ePayroll (www.epayroll.com.au) and Cloud Payroll (www.cloudpayroll.com.au)	Payroll functions for both employer and employees can be accessed through the internet. This allows employees to complete their timesheets remotely, manage their bank details and apply for leave through a browser interface. Employers can use integrated timesheets to pay employees, schedule shifts, manage leave requests and set pay condition rules (that is, automatically pay overtime rates). Pricing is typically per employee per month, or a monthly fee that scales at specific employee number brackets (for example, 1-5 then 6-10, etc.).

Increased information can also increase the buying power of small businesses. For example, the same information flow benefits that improve customer relationships also result in increased supplier options, increasing alternatives and therefore competition between suppliers, resulting in lower costs.

Some studies suggest that larger, established businesses may have easier access to financing than do small firms. For example, Beck and Demirguc-Kunt (2006) find empirical evidence that "small firms face larger growth constraints and have less access to formal sources of external finance".[48,49] Cole (1998) finds that a lender is more likely to extend credit to a firm with which it has a pre-existing relationship,[50] which suggests new businesses may be at a disadvantage raising finance compared to incumbents.

The internet has enabled a new avenue for firms to obtain finance—crowd funding.[51] Crowd funding is when a business raises funds from a large number of investors or customers through an online platform, typically with the dollar amount per funder being relatively small.[52] As one study found, crowd funding for early-stage ventures has become a meaningful method of finance with the rise of the internet for three main reasons:[53]

- Matching funders with creators has become more efficient and effective due to lower search costs online;
- Investor exposure to individual firms has declined because funding in small increments is economically feasible online; and
- Low communication costs facilitate better information gathering and progress monitoring for distant funders and also better enable funders to participate in the development of the idea.

5.2 Distribution

Small businesses may struggle to access the same variety of distribution channels as larger players can leverage. For example, distributors may be wary about the ability of small businesses to provide a stable source of supply and consistent product or service quality. Distributors may also be concerned about how small businesses will drive demand for their products. Small distributors or retailers also may have limited shelf space. And small businesses may have to compete against the distribution relationships that more established firms already have in place.

The internet and mobile computing also have the potential to enable small businesses to bypass traditional distribution channels to bring their products to market and reach customers. For instance, customers can often go straight to a manufacturer's website to determine product prices or make purchases, which in turn has led to the removal of intermediaries such as distributors and retailers in the supply chain.

The internet may also enable small businesses to avoid certain distribution channels. By improving information flows and communication (for example, using a website to direct potential customers to other distribution channels), the internet may assist in still facilitating sufficiently high volumes of sales.[54]

In Australia, some small businesses may be assisted by group buying sites such as Catch of the Day and other more specialized enterprises such as New Zealand company Torpedo 7, which has expanded to Australia and offers outdoor and sporting products, from multiple suppliers, along with expert advice and technical assistance in selecting and operating the products.

For small businesses, simplification of the distribution chain has the effect of reducing the cost of reaching customers and reducing the importance of traditional distribution channels. Both of these types of changes have helped small businesses to compete more effectively.

Traditionally the geographic reach of a business was constrained by the location of the business' physical premises. Geographic expansion would occur by opening new stores in a different geographic location (which may be costly for a small business), or convincing a distributor to offer the product in a new area (which may be difficult for the reasons already mentioned). The seemingly limitless geographic reach of the internet, however, has effectively broadened the geographic market for many businesses. This can be done by listing products on platforms that connect buyers and sellers (for example, eBay, Farmerhouse Direct, Etsy[55]) or by establishing a stand-alone online store. Both of these options help give small businesses the geographic reach available to larger businesses.

Examples

4Cabling Used the Internet to Minimise Upfront Costs

4Cabling is an Australian manufacturer, wholesaler and retailer of cabling and IT management accessories such as voice, data, fibre and electrical cabling and server rack equipment. In 2006, it entered the market by selling to customers online and operated exclusively via internet sales.

Before the launch of 4Cabling, the data communications industry was dominated by a handful of big brands that would pass their products onto a distributor, who would then sell their products to an exclusive network of electrical and data wholesalers. The founder of 4Cabling, Nicole Kersh, believed that a vertically integrated company that was a wholesaler, distributor and retailer could undercut the market.[56] However, as a 21 year old university student she had limited appetite for risk in starting a new business.

Beginning the business with an online presence rather than a shop front allowed her to incrementally enter the market with minimal risk and cost, and with flexible hours to suit her university schedule. 4Cabling avoided the necessity of carrying inventory and was instead able to fill orders as they were made, which smoothed the company's costs and revenues in the early stages of the business, reduced the need for carrying costs of financing and reduced the risk and costs of stocking and manufacturing items that did not sell. This type of market entry is particularly enabling for small businesses with limited capital and resources to implement a traditional shop front approach.

The success of the online store led to a bricks-and-mortar shop in Sydney. The entry model employed by 4Cabling also reduced the importance of sunk costs. Instead of making an initial investment into facilities, some of which would be sunk, 4Cabling was able to forego commitments to real estate until demand for its product was more firmly established. In addition, to open a physical shop requires a large up-front investment in inventory. 4Cabling avoided the necessity of carrying inventory and was instead able to fill orders as they were made, which smoothed the costs and revenues in the early stages of the business, reduced the need for carrying costs of financing and reduced the risk and costs of stocking and manufacturing items that did not sell.

By 2013, the company had a turnover of $6.5 million a year and had a market share of around 15 percent.[57] 4Cabling employs more than 20 people.[58] The business has won numerous awards including Deloitte's Technology Fast Top 50 winner in 2011 and 2012. Media coverage has also been extensive with Miss Kersh being interviewed by newspapers such as the Australian and the Sydney Morning Herald as well as being interviewed on Kochie's Business Builders.[59]

A Law Firm That Has Used Cloud Computing to Lower Its Costs and Risk

When a start-up law firm that specializes in litigation and insolvency opened its first office in Sydney, the partners had to make a big decision regarding the way it was going to operate (the law firm in question has requested anonymity). It had to have state-of-the-art computing technology to compete against the larger multinational law firms, but to be competitive, it would have to operate with lower fixed costs. The partners chose to use cloud-based technologies, which enabled them to avoid making large upfront investments. By lowering their costs, the law firm significantly reduced its financial risk.

For this law firm, it was the use of cloud based technology and Software as a Service (SaaS) products that allowed the firm to avoid investment costs. They could pay for these services on a monthly subscription basis and on a per user basis. This approach also means that as the firm grows in size, it can scale its IT infrastructure and software requirements more efficiently. Thus, instead of making a large upfront investment, the law firm could:

- Pay for access to cloud-based secure file servers on a monthly basis, based on the number of users and space required;
- Give its employees access to all files and emails remotely, thereby allowing them to work from outside the office and apply a hot-desk arrangement in the office, which further reduced the upfront costs of fitting out physical workspaces; and
- Use VOIP telephones rather than incurring the costs of setting up fixed line telephones.

Like other small business start-up ventures, cash flow was one of the law firm's biggest concerns, and paying for services on a monthly basis allowed the firm to better align its costs with its revenues.

The use of the internet also reduced the importance of scale in respect of a number of business functions. The law firm was able to lower its costs by:

- Using modern practise management software that automates a number of processes, such as invoicing and time sheets;
- Using business management systems that interface directly with the firm's bank, reducing the time and financial costs associated with banking and accounting; and
- Using Linkedin as a low cost and effective substitute for recruiting.

The law firm believes that through cost savings and the avoidance of the overhead costs associated with a large firm, it is able to operate at a profit margin up to 15-20% higher than law firms that are larger.

Birdsnest Expands Geographic Reach of Physical Store Using E-Commerce

Birdsnest opened in 2004 when E-commerce consultant Jane Cay moved to rural Australia (Cooma, population ~6,000).[60] It was initially a bricks and mortar women's fashion boutique before expanding in 2008 to have an online store. The online store now represents 93% of sales and the business now ships more than 500 packages a day.[61]

Starting an online store as a complement to a bricks and mortar store actually de-risked the move relative to a stand-alone online store because its stock could still be sold through the bricks and mortar store, as explained by Jane Cay:

The store itself has been so critical to going online because, for one, it's taught us so much about retail and, for two, we could never have gone out and invested in that stock initially knowing we only had the online channel to clear it. We really had a successful store, we knew that if the online thing flopped we had another way of moving the stock because we really didn't know what to expect, yes we had big dreams. So in terms of integrating as it went on, at the very beginning all the stock was picked from the store so when an order came in we would literally walk out onto the shop floor and pick the stock and then pack it and it would go.[62]

Birdsnest is now one of the top 50 apparel sites in Australia and records over 1 million views a month.[63] Jane Cay's experience illustrates how the internet can broaden the geographic reach of small businesses:

Google doesn't care where you are. It doesn't care if you are in regional Australia or the big city. If you are the most relevant person or the most relevant site, they will find you.[64]

Since launching the online store, Birdsnest has experienced rapid growth. In spring 2008 it sold 100 dresses whereas in spring 2011 it sold 11,000 dresses.[65] This growth translated to a doubling in revenue each year in the first three years of the website's operation[66] and revenues in 2013 of around $20m.[67] Still based in Cooma, Birdsnest has grown from 5 employees in 2008[68] to more than 120 today.[69] Its headquarters recently doubled in size, with Birdsnest leasing a former supermarket to accommodate more warehouse space.[70]

Birdsnest offers a personalized shopping experience for women. Clothes can be browsed by, for example, body shape, occasion and personality. This personalized experience, combined with a loyalty program, has resulted in 70% of revenue coming from returning customers.[71]

This aspect of the site was recognized last year with Birdsnest winning the award for best customer experience at the 2013 Online Retail Industry.[72]

Butcher Direct: Online-Only Has Lower Set Up Costs and Broader Reach Than Traditional Retail

Butcherdirect.com.au began life in 2004 as a 150 acre beef and lamb farm in Orangeville, just outside Sydney. Owners Shaun Grimston and Tim Wilson were originally meat exporters, but decided to farm their own cattle because they could not locate any suppliers that met their quality standards.[73]

They began selling their meat direct to friends and family before realising there was a broader demand for purchasing free-range, locally sourced meat, directly from the farm. In 2013 they started selling to the public directly through their website www.butcherdirect.com.au.

As explained by Sean Grimston, they opted to follow an online-only route, due to the lower setup costs and broader reach of a web-based store, compared to a bricks-and-mortar store:[74]

The upfront cost of a bricks and mortar store was out of the question. Setting up a website costs far less than paying rent in a shopping centre. We are also able to supply a vast area with our products. With careful planning we are now able to service the entire Sydney basin and regional areas six days a week and we are looking to expand to Brisbane and Melbourne early this year.

While their entry is relatively recent, initial signs are promising, with Shaun Grimston describing their growth since entering:[75]

We increased sales 150 per cent in December from November. January was relatively quiet, but February has been busier than December.

With the website now established, they are looking at opening a bricks and mortar retail butcher/cafe in Surrey Hills.[76] This suggests that online can also serve as a beachhead/proof of concept before traditional, bricks and mortar entry.

This example illustrates that the internet has made downstream entry/vertical integration easier by reducing the need for a physical store and therefore lowering the cost of entry and broadening the geographic market that can be reached.

ISOS Organic Australian Vodka Used Crowd Funding

ISOS Organic Australian Vodka was founded by Australian entrepreneurs Dave Brown and Luke Langton. The pair set out to create the world's best vodka and a more sustainable production process than that used for imported vodka. ISOS vodka entered the local market in Sydney in mid-2014, following a successful crowd funding effort on the website Pozible (http://www.pozible.com).

The founders, Brown and Langton, developed a process for producing top shelf, organic wheat vodka. However, they had a challenge in getting ISOS to the market. The founders explained that the excise duties payable in Australia for their products were significant and had to be paid up front before any bottles could be sold. Without the capital to meet the up-front excise duties and the ability to generate cash, the finished product was effectively trapped in the distillery.

Brown and Langton turned to the crowd funding platform Pozible, where they raised AU$10,932 on a target of AU$10,000—enough to get the first batch out of the distillery. While crowd funding has existed in various forms since well before the internet age (for example, telethons following natural disasters), the use of an online fundraising platform such as the Australian site Pozible has popularised the practice, created a universal network and lowered the costs of generating pledges. The internet platform allows individuals and groups to expand their community network, thereby increasing potential fundraising outcomes.

Online fundraising platforms can help to facilitate the opportunity for local entry into a market characterised by large foreign firms and by significant excise duties for alcohol products produced in Australia. The entry of a local premium product with a relatively sustainable production process also increases the variety available to consumers in the local market for vodka.

Tradesmen Use Mobile Technology to Improve Efficiency and Go Paperless

A 2013 survey of more than 500 Australian tradesmen commissioned by Totally Workwear found that half travelled to sites with laptops and more than 40% had smartphones or tablets.[77]

Because tradesmen spend large portions of their time on the road, using cloud computing and the internet to automate tasks and work remotely has the potential to provide large improvements in productivity. Administrative tasks (such as accounting and scheduling jobs) that previously would have been done after hours or at the expense of paid jobs can now be undertaken "on-the-go".

Examples of the services that the tradesmen are using are TradiePad[78] and Fergus.[79] A key feature of both of these services is a job management management/scheduling system[80] that allowed the tradesmen to:[81]

- Plan all their jobs for the day;
- Schedule new jobs in real time with the person assigned the job receiving a notification;
- Use GPS data to track location in real time which can allow the closest tradesman to be assigned;
- See all project information from the job site, including a list of parts required for the job;
- Allocate jobs using an integrated calendar for all employees;
- Obtain directions to the work site;
- Record time easily and accurately;
- Take photos of complete work and store them in the project file; and
- Provide instant electronic quotes on site.

The net effect of these planning and scheduling tools is likely to be higher worker utilisation and efficiency. Fergus founder Dan Pollard claims that the utilisation of their users is much higher than a typical tradesman (which we take to mean one not using a cloud job management system).[82]

"In a 40-hour week a tradesman will be charging up to 28 hours and we take that up to 38 hours. If you put another 10 hours on the week at $85 an hour that's $850 per tradesman per week that they're charging out," Pollard said.

At a more granular level, tradesmen are also now using apps to do technical calculations that would previously have been done by hand, as Electrical Trades Union secretary Steve Butler states:[83]

It was only five or so years ago that these same electricians were using conversion tables, doing conversion in their head or using pen and paper. All that is changing.

The founders of TradiePad (plumbers by trade) describe the transition to a mobile, paperless office as follows:[84]

This had a profound effect on the efficiency, profitability and professionalism of the business and also led to significant changes in their personal lives. Less time spent doing paperwork during and after business hours meant more time spent on the job and with family, something that you just can't put a price on.

Likewise, Laser Group (who have their own software) claim that going mobile has meant that they now spend 10% of their day on paper work and traveling instead of 30%, and are able to complete up to three extra jobs a day.[85]

6. Internet-Facilitated Platforms and Tools for Small Businesses

Up to this point, the paper has focused on how small businesses have used the internet and mobile computing to increase their competitiveness. In this section we profile new internet-based businesses that create platforms enabling small businesses to better compete in their respective markets. Each of these platforms (or tools) has a combination of the following features:

- Expanding the reach of small businesses, and diversifying sales channels;
- Reducing the costs (cash, transaction and opportunity) of bringing sellers and buyers together, creating more welfare enhancing transactions; and
- Lowering the costs of entry and expansion for small businesses.

A key feature of these platforms are their "two-sided" nature. Consider, for example, eBay, which helps buyers and sellers find each other. To sellers, the value of a platform like eBay increases with the numbers of buyers that use the market. Likewise, to buyers, the value of a platform like eBay increases with the number of sellers that use it.[86] This is because the greater the number of users on each "side", the greater the likelihood there will be a "match" between buyer and seller. Because of the two-sidedness of the market, a platform like eBay needs to attract both buyers and sellers to the market and will set prices accordingly. The internet and mobile computing have facilitated the growth of two-sided platforms, and we discuss examples below, including eBay.

Examples

Farmhouse Direct Provides an Online Farmers' Market

There are many small businesses involved in producing fresh produce and other delicacies. In 2010-11, there were around 135,000 farm businesses across Australia, with around 55 per cent having estimated sales of less than $100,000.[87] Australian agricultural production was $48 billion in 2012-13.[88]

Fresh food producers and associated small businesses typically engage in business-to-business transactions. For example, a tomato farmer may sell produce to a processor. However, farmers have increasingly been engaging in business-to-consumer transactions, through mediums such as farmers' markets.

Farmers' markets have been increasing in popularity, with approximately 152 farmers' markets in Australia in 2011.[89] Farmers markets and other alternative fresh food retail markets represent about seven per cent of the market for fresh food in Australia. In contrast, supermarkets have about a 50 per cent share.[90]

Farmhouse Direct is an online virtual farmers' market that gives customers access to locally produced food and regional delicacies.[91] Farmhouse Direct acts as a platform to enable customers to buy direct from farmers and producers, without the use of a warehouse or middleman.

Each listing typically includes photos, delivery information and general information about the product and the producer. The website offers a single checkout but does not aggregate delivery across sellers.[92]

Farmhouse Direct was developed by Australia Post with the support of the Victorian Farmers' Market Association. The national roll out in April 2012 involved 70 producers and 680 products, and by October 2014 the site had expanded to 305 producers[93] and 3,611 products.[94] Australia Post gives preferential postage rates to producers on the site and receives a commission of 7.5 per cent on all sales.

Farmhouse Direct also uses social media, and its website features some of the producers in a "meet the producers" section. Additionally, the website provides recipes, tips and articles. Farmhouse Direct was featured on Channel 7's Sunrise program in February 2014.

In addition, Farmhouse Direct provides the infrastructure and rules to facilitate transactions between customers and small businesses. It increases and diversifies the ways in which small producers can engage with customers, and enables a greater geographic reach. Other benefits to farmers include:

- Access to an alternative low cost retail supply channel, as farmers do not have to pay fees at physical farmers' markets or transportation costs (although there is still postage and the commission to Australia Post);
- Higher returns as the prices farmers charge to customers are typically higher than to other businesses (and because of the disintermediation, consumers may also benefit from the lower supply chain costs);[95]
- Lower-cost market entry for small producers who would not sell to other business due to small scale production; and
- A venue that gave farmers the opportunity to test new products with limited investment.

E-Commerce Platforms Lower Costs and Risks for Small Businesses Expanding Online

E-commerce websites (such as the Australian firms Neto[96] and BigCommerce[97]) provide a platform that allows businesses to quickly set up a fully featured online store through a single provider.[98] These platforms are used by businesses across the spectrum, as illustrated by BigCommerce's claim of being used on over 55,000 websites generating more than $4 billion of sales.[99]

BigCommerce and Neto provide businesses with "out of the box" features such as:

- A mobile/tablet friendly version of the store;
- Secure credit card payments;
- A built-in customer review system;
- Inventory management (including returns);
- Different product options;[100]
- Estimated shipping costs for customers;
- Customer loyalty programs; and
- Promotions (for example, free shipping on orders over a certain value).

These systems reduce the transaction costs of setting up and managing an online store, letting the business owner "spend less time building and more time selling".[101] Customer case studies of Neto and BigCommerce cite benefits such as reduced time,[102] lower costs,[103] and increased sales.[104]

Or as BigCommerce user James van Royen of bicyclesonline.com puts it:[105]

BigCommerce gives us access to big business features at small business prices.

eBay Provides an Online Marketplace Matching Buyers and Sellers and Expanding Geographic Reach

eBay is an online market place. According to eBay, one in five Australian small businesses are represented on it.[106]

The primary benefit to a small business of using eBay is reaching a large potential customer base at a relatively low cost. As described by Nathan Huppatz, founder of costumes.com.au:[107]

The best thing about eBay is its size. You can start a business and get customers and sales nearly immediately. eBay has six or seven million visitors per month, and it is very cheap to get started. For anyone looking to start an online business from home or for some extra income I would recommend starting on eBay. If you have a good product at a good price, then you should get sales.

eBay Australia director Tim MacKinnon has stated that eBay invests $105 million in Australia to drive traffic to its merchants' sites.[108]

eBay's global reach also makes exporting easier, allowing small businesses to reach a broader demand base as well as diversifying their customers across different markets. According to eBay, 78% of commercial eBay sellers export compared to only 2% of all registered business in Australia. Similarly, on average commercial eBay exporters ship to 28 destinations compared to traditional exporters who ship to three.[109]

Crowd Sourced Design Allows Small Businesses to Outsource Design

DesignCrowd[110] and 99Designs[111] are both Australian developed platforms that provide an internet-based matching service between designers and clients who need custom design work done (such as new logos, websites and packaging). The platforms work by the client posting a project description (called a "brief") on the site, which designers compete to fulfil by submitting designs. The client picks the one she wishes to use.[112] In the case of DesignCrowd, each project on average receives 106 design proposals.[113]

These platforms provide a matching service between designers and clients who need work done. The platforms work by the client posting a brief on the site, which designers then compete to fulfil. On DesignCrowd and 99Designs this takes the form of a "contest" whereby designers submit designs and the client picks the one they wish to use.[114] In the case of DesignCrowd, each project on average receives 106 designs.[115] While Freelancer also has contests for design work, for the broader non-design work, clients post project briefs for which suppliers then provide competing quotes for the client to pick from.

Since launching in 2001, more than 6 million projects have been posted on Freelancer.com with an aggregate value of over 1.8b USD.[116] Similarly, DesignCrowd and 99Designs have completed more than 24m USD[117] and 85m USD[118] worth of projects respectively.

The sites also incorporate ratings systems and allow designers (and clients) from anywhere in the world to participate (DesignCrowd and 99Designs respectively have over 400,000[119] and 900,000[120] designers on their platforms). In this sense, we can view platforms like this as providing many of the information benefits we discussed in section 3, except in a business-to-business context.

Notes

[1] Our analysis does not depend on a particular definition of "small business". We note the Australian Bureau of Statistics defines a small business as one with less than 20 employees (see http://www.abs.gov.au/ausstats/abs@.nsf/mf/1321.0.), but our analysis is not restricted to firms of this size.

[2] Of course, the internet has disrupted the business models of some traditional small and large businesses alike, for example, in retail. But the focus of our paper is on how small businesses can use the internet and mobility to become more efficient and competitive.

[3] ACMA (2014) "Australian SMEs in the digital economy", , Report 1. See also Deloitte Access Economics (2013) "Connected Small Businesses—How Australian small businesses are growing in the digital economy" and Sensis (2012) "Sensis e-Business Report: The Online Experience of Small and Medium Enterprises".

[4] ACMA (2014) "Cloud Computing in Australia", Communications report 2012-13 series, Report 2.

[5] Sensis (2014) "Yellow Social Media Report: What Australian people and businesses are doing with social media".

[6] Yannis Bakos, J. (1997) "Reducing Buyer Search Costs: Implications for Electronic Marketplaces", , Vol. 43, No. 12.

[7] Indeed, specialist price and product comparison websites have evolved. Sites such as http://www.canstarblue.com.au/ and http://www.iselect.com.au/ allow price comparison for services such as insurance, electricity/gas and broadband. Similarly, sites such as http://www.shopbot.com.au/ and http://www.getprice.com.au/ allow price comparisons of consumer goods (electronics, clothes, books, etc.)

[8] Nielsen (2014) "The New Retail". Available at: http://goo.gl/SO4Eoz.

[9] Page 615, Belleflamme, P., Pietz, M. (2010) , Cambridge University Press.

[10] Google Analytics allows the owner of the webpage to track information about visitors to its website, including: broad geographic location, operating system and browser, time spent on individual pages and whether they are a returning visitor.

[11] See http://www.surveymonkey.com/mp/audience/.

[12] We understand that most of Google Analytics and Survey Monkey tools are free to small businesses.

[13] PwC has defined four different types of data-driven innovation: data-driven goods and services; data-driven planning; data-driven marketing and data-driven operations. PwC estimated that data-driven innovation added $67b to the Australian economy but left a further $48b on the table that could be captured. See http://www.pwc.com.au/consulting/assets/publications/Data-drive-innovation-Sep14.pdf.

[14] http://patandstick.com.au/.

[15] http://patandstick.com.au/general/our-fans-are-amazing/.

[16] See http://www.victoriantourismawards.com.au/2013-entrants/mornington-peninsula/moonraker-dolphin-swims.html

[17] Anne Fulwood (2013) "Sun shining on a life aquatic", , 23-24 March.

[18] http://www.moonrakercharters.com.au/.

[19] See http://www.smh.com.au/small-business/growing/an-aquatic-work-life-20121102-28nxt.html accessed: 8/2014

[20] See http://www.dailytelegraph.com.au/award-winner-a-seaworthy-success/story-fnejokbs-1226639302154?nk=8a8a71488cb26982d543375f0c16c20fhttp://www.dailytelegraph.com.au/award-winner-a-seaworthy-success/story-fnejokbs-1226639302154?nk=8a8a71488cb26982d543375f0c16c20f

[21] Fulwood (2013), .

[22] Visit Melbourne website, available at: http://www.visitvictoria.com/Regions/Melbourne/Activities-and-attractions/Food-and-wine/Restaurants/Food-trucks, accessed 7 August 2014.

[23] Wherethetruck.at is an example of a business model enabled by the internet and is funded exclusively through advertising revenues. http://sydneyfoodtrucks.com.au is a city council funded website.

[24] See http://tacotruck.com.au/.

[25] http://wherethetruck.at/trucks/. Accessed 19/09/14.

[26] See, for example, chapter 14 of Carlton, D. and Perloff, J. (2005) 4th ed. Boston: Pearson/Addison Wesley.

[27] Sunk costs are defined as costs that cannot be recovered once they are made.

[28] See, for example, Laroch et al., (2013) "To be or not to be in social media: How brand loyalty is affected by social media?" , 33, p. 76-82; and Erdogmus and Cicek, (2012) "The impact of social media marketing on brand loyalty", 58, p. 1353 – 1360.

[29] This can lead to a form of market failure known as "adverse selection". The classic reference is G Akerlof (1970) "The Market for Lemons: Quality Uncertainty and the Market Mechanism", 89, 488-500.

[30] For example, http://www.bikeradar.com/ for road cycling.

[31] http://www.ssvb.com.au.

[32] http://www.smh.com.au/small-business/startup/a-cut-above-the-making-of-a-meatfree-butcher-20130130-2djs8.html.

[33] The success of which is illustrated by their 93% approval rating on Urban Spoon. See http://www.urbanspoon.com/r/70/1758693/restaurant/Sydney/Suzy-Spoons-Vegetarian-Butcher-Newtown (Accessed 24/10/14).

[34] http://www.smh.com.au/small-business/startup/a-cut-above-the-making-of-a-meatfree-butcher-20130130-2djs8.html.

[35] http://www.businessannualawards.com.au/Regions/South-East/2014-Winner-s-Profiles.

[36] http://www.businessannualawards.com.au/Regions/South-East/2014-Winner-s-Profiles.

[37] See, for example, http://www.canberratimes.com.au/small-business/trends/blogs/the-big-idea/how-to-avoid-being-ripped-off-20140321-356r3.html https://au.tv.yahoo.com/sunrise/factsheets/article/-/10430649/how-to-spot-a-shonky-tradesman/ and http://www.thechronicle.com.au/news/rip-off-court-order-meaningless-if-gardener-wont-p/2266866/

[38] In its 1998 consultation paper on "combating cowboy builders", the United Kingdom Department of Environment, Transport and the Regions defined "cowboy builders" as being incompetent, dishonest and tax evaders. See DETR (1998) Combating cowboy builders: A consultation paper. London: HMSO.

[39] Sensis (2014) "Yellow Social Media Report: What Australian people and businesses are doing with social media", May.

[40] PwC (2012) Digital Media Research. Available at http://www.pwc.com.au/industry/retail-consumer/assets/Digital-Media-Online-Shopping-Jul12.pdf

[41] We note that these sites are not limited to these professions and actually cover everything from builders to accountants and graphic designers.

[42] Although they often have to pay for add-on services that allow businesses to further promote themselves on the site.

[43] http://www.womo.com.au/. Accessed 22/10/2014.

[44] https://www.servicecentral.com.au/. Accessed 22/10/2014.

[45] For example, http://www.womo.com.au/about.php?opt=Business%20Case%20Studies.

[46] Dennis Carlton (2004) "Why barriers to entry are barriers to understanding", , Vol. 94, No. 2, pp. 466-470.

[47] See Richard Schmalensee (2004) "Sunk Costs and Antitrust Barriers to Entry", , Vol. 94, No. 2, pp. 471-475 and McAfee, R. P., Mialon, H. M. and Williams, M. A. (2004) "What is a Barrier to Entry?", , Vol. 94, No. 2, pp. 461-465.

[48] Beck, T. and Demirguc-Kunt, A. (2006) "Small and medium-size enterprises: Access to finance as a growth constraint", , Vol. 30, Issue 11, pp2931-2943.

[49] See also, Beck, T., Demirguc-Kunt, A., Laeven, L. and Levine, R. (2008) "Finance, Firm Size, and Growth", , Vol. 40, No. 7.

[50] Cole, R. A. (1998) "The importance of relationships to the availability of credit", , Vol. 22, Issues 6-8, pp. 959-977.

[51] In Australia, equity crowd funding currently occurs through the websites such as the Australian Small Scale Offers Board (http://www.assob.com.au) and Venture Crowd (http://www.venturecrowd.com.au/). A new entrant, Equitiese (http://equitise.com.au/) also has plans to enter.

[52] We understand that the regulation of crowd funding in Australia is currently under review.

[53] Argawal, A. K., Catalini, C. and Goldfarb, A. (2013) "Some Simple Economics of Crowdfunding", , June. Available at http://www.nber.org/papers/w19133.

[54] We have already noted how the Pat and Stick's Homemade Ice Cream Company website directs customers to supplying retailers.

[55] We discuss eBay and Farmhouse Direct in section 6 of this paper. Etsy is an online marketplace focused on handmade and vintage goods. See http://www.etsy.com.

[56] 4Cabeling website, available at http://www.4cabling.com.au/about.html accessed 10 August 2014.

[57] Iyer, P., "Nicole Kersh is willing and cable", The Australian, 17 October 2013.

[58] The Kersh family sold the business in 2014, .

[59] Kochie's Business Builders describes itself as, "the No1 small business program on Australian television and it's dedicated to providing practical information, tips and advice on issues that small to medium-sized businesses face day-in, day-out". See http://shop.kochiesbusinessbuilders.com.au, accessed 24 September 2014.

[60] http://www.powerretail.com.au/getting-started/case-profile-birdsnest/.

[61] http://www.canberratimes.com.au/small-business/managing/fashionable-flocking-to-the-nest-20121211-2b82j.html

[62] http://www.digitalbusiness.gov.au/your-stories/birdsnest-video-and-transcript/.

[63] http://www.digitalbusiness.gov.au/your-story/birdsnest/.

[64] http://www.digitalbusiness.gov.au/your-stories/birdsnest-

video-and-transcript/.

[65] http://www.afr.com/p/business/enterprise/google_doesn_care_where_you_are_hQjqwcmcKMzQPrzdZGdMVN.

[66] http://www.smh.com.au/small-business/entrepreneur/rural-retailer-makes-the-country-fashionable-20120321-1vj8i.html.

[67] http://www.theaustralian.com.au/media/marketing/fashion-etailer-birdsnest-doubling-facebook-community-each-year/story-fna12mff-1226844471570.

[68] http://www.afr.com/p/business/enterprise/google_doesn_care_where_you_are_hQjqwcmcKMzQPrzdZGdMVN.

[69] http://www.theaustralian.com.au/media/marketing/fashion-etailer-birdsnest-doubling-facebook-community-each-year/story-fna12mff-1226844471570.

[70] http://www.canberratimes.com.au/small-business/managing/fashionable-flocking-to-the-nest-20121211-2b82j.html.

[71] http://www.powerretail.com.au/getting-started/case-profile-birdsnest/.

[72] http://www.powerretail.com.au/news/online-retail-industry-award-winners-2013/.

[73] See http://butcherdirect.com.au/company/, http://www.web4business.com.au/featured-businesses/butcher-direct/ and http://www.startupsmart.com.au/technology/butcher-direct-embraces-online-retail-for-beef-sales/2014012411563.html.

[74] http://www.web4business.com.au/featured-businesses/butcher-direct/.

[75] http://au.smallbusiness.yahoo.com/startup/a/-/21810859/local-butcher-meats-online/.

[76] http://au.smallbusiness.yahoo.com/startup/a/-/21810859/local-butcher-meats-online/.

[77] http://www.news.com.au/finance/real-estate/technology-now-a-tool-of-the-trade-in-construction/story-fndbarft-1226579678745.

[78] http://www.tradiepad.com.au. This is an Australian company that a provides a bundle including Google Apps, Xero, GeoOp and Invoice2Go.

[79] See https://fergusapp.com/.

[80] In the case of TradiePad this is GeoOp (http://www.geoop.com) while Fergus is the job management software. Another service is iTrade (http://www.itrade.net).

[81] See, for example, http://geoop.com/geoops-features/ and https://fergusapp.com/#features.

[82] http://digitalfirst.com/2013/07/10/plumber-claims-best-apps-for-tradies-come-from-within/.

[83] http://www.news.com.au/finance/real-estate/technology-now-a-tool-of-the-trade-in-construction/story-fndbarft-1226579678745.

[84] http://www.tradiepad.com.au/About-Us/

[85] http://www.smh.com.au/it-pro/business-it/tradespeople-swap-pens-for-ipads-cloud-20130703-hv0le.html.

[86] This is what economists call a "cross platform externality".

[87] Australian Bureau of Statistics website, available at http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4102.0Main+Features10Dec+2012 accessed 7 August 2014.

[88] Australian Bureau of Statistics website, available at http://www.abs.gov.au/ausstats/abs@.nsf/mf/7503.0, accessed 7 August 2014.

[89] See: DAFF 2013, 2011-12, Department of Agriculture, Fisheries and Forestry, Canberra, p 57.

[90] See: DAFF 2013, 2011-12, Department of Agriculture, Fisheries and Forestry, Canberra, p 57.

[91] http://www.farmhousedirect.com.au/.

[92] The business model of Farmhouse Direct appears to be different to that of Aussie Farmers Direct, which is more a produce delivery service. See https://www.aussiefarmers.com.au/Default.asp.

[93] http://www.farmhousedirect.com.au/producers. Accessed 22/1014

[94] See http://www.farmhousedirect.com.au/products. Accessed 22/1014.

[95] It is relevant to note that processors can have market power over farmers—this is one of the reasons we observe cooperatively-owned processors.

[96] http://www.neto.com.au/.

[97] http://www.bigcommerce.com/.

[98] http://www.bigcommerce.com/features/setup/.

[99] https://www.bigcommerce.com/. Accessed 22/10/2014.

[100] For example, instead of listing each colour of a particular model shown as a separate item, it could be listed as a single product with different colour and size options the shopper can select.

[101] http://www.bigcommerce.com/features/setup/. Website accessed on 17/0914.

[102] E.g., the Hip Kids clothing store case study on the Neto website which states, "By automating our main admin tasks it obviously freed up a lot of our time which meant we could concentrate more on growing and taking our business to the next level." See https://www.neto.com.au/v/hipkids-case-study.

[103] E.g., the Ram City case study on the Neto website which states, "Within 6 weeks we had slashed our website management costs by 50%, and were able to reduce the number of full time staff working on order and payment processing from 3 down to just 1..." See

https://www.neto.com.au/v/ramcity-case-study.

[104] E.g., the Ram City case study on the Neto website which states, "Within 6 weeks we had slashed our website management costs by 50%, and were able to reduce the number of full time staff working on order and payment processing from 3 down to just 1..." See https://www.neto.com.au/v/ramcity-case-study.

[105] Quote appears on https://www.bigcommerce.com/pricing/. Website accessed on 17/09/14.

[106] Defined as turnover of AUD50,000 – AUD200,000. See eBay Inc., , 31 July 2013.

[107] www.smh.com.au/small-business/franchising/so-you-want-to-be-an-ebay-millionaire-20140219-32zkc.html.

[108] www.smh.com.au/small-business/franchising/so-you-want-to-be-an-ebay-millionaire-20140219-32zkc.html.

[109] eBay Inc., Commerce 3.0: Enabling Australian Export Opportunities, 31 July 2013

[110] http://www.designcrowd.com/.

[111] http://99designs.com.au/.

[112] http://99designs.com.au/how-it-works and http://www.designcrowd.com/how-it-works.

[113] http://www.designcrowd.com/how-it-works Accessed 22/10/2014.

[114] http://99designs.com.au/how-it-works and http://www.designcrowd.com/how-it-works.

[115] http://www.designcrowd.com/how-it-works Accessed 22/10/2014.

[116] https://www.freelancer.com/about. Accessed 22/10/2014.

[117] http://www.designcrowd.com/how-it-works. Accessed 22/10/2014.

[118] http://99designs.com.au/. Accessed 22/10/2014.

[119] http://www.designcrowd.com/. Accessed 22/10/2014.

[120] http://99designs.com.au/. Accessed 22/10/2014.

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