

Chapter 3. Case Studies

3.1 Case Study of Australia¹

3.1.1 Profile of a Woman Entrepreneur

Ms. Sonja Bernhardt OAM² is Chief Executive Officer of the multiple award winning software development firm ThoughtWare Australia (www.thoughtware.com.au), the parent company for 'i.on my', a fully integrated software solution for the healthcare industry (www.ionmycare.com). The software is an evidence-based governance, risk and compliance platform that incorporates accreditation and human resources (HR) capability with embedded continuous improvement.



Source: www.sonjabernhardt.com

Ms. Bernhardt was born in Tasmania in 1959, the eldest daughter and middle child of a German immigrant who migrated to Australia after World War II where he built a successful life for himself, his wife and five children.

¹ This case study was conducted by Patrice Braun, Adjunct Professor, Research & Innovation Portfolio, Federation University Australia, Australia.

² To compile this case study, two one-hour telephone interviews were conducted with CEO Sonja Bernhardt, company websites were researched, and a series of emails were exchanged with Ms. Bernhardt and members of the ThoughtWare team.

Ms. Bernhardt holds three management and information technology related degrees including an MBA. She did not set out to have a career in IT. Rather, she fell into it sideways when a Human Resources job she took turned out to be an HR software support position. Ms. Bernhardt had always been good at math and the combination of interests made the job a good fit for me. In 1999 she was made redundant from a large technology company. *“I knew that I was good at what I did and that I had no control over the redundancy situation so I decided that I never wanted that to happen to me again”*, recalls this dynamic CEO. Within a few days she had set up her own company.

As the business owner and CEO of ThoughtWare Australia, a Gold Coast-based software and services company, Ms. Bernhardt contributes to the development of Queensland businesses in the health care industry. A technology industry identity in her home country of Australia, she is passionate about her industry and for over a decade, has consistently encouraged others to either take up a career in technology or adopt technology in their daily lives through a multitude of career, role model, mentoring and board readiness programs that she has been primarily responsible for designing and managing.

Ms. Bernhardt is one of the highest profiled women in the Australian IT industry. Her peers recognize her as an action-oriented, results-achieving role model who consistently delivers benefits through her innovation, pioneering achievement and collaborative contribution to the development of the technology industries. Recognized in ‘Who's Who’ of Australian Women and in Who's Who in Queensland Business, it is about making a difference and that is what Ms. Bernhardt does with a strong values-driven philosophy that is evident in her continual strength of passion, energy and motivation. She has always been passionate about working to increase the number of women in technology and having her own company has let her act on that passion. Ms. Bernhardt has long known that women want to learn, adapt, change, and be inspired; that is one of the reasons she was the founder and inaugural president of Women in Technology (WIT, www.wit.org.au) in 1997.

WIT has been encouraging women to choose IT as a career since its inception. The association strives to raise the status of women in Australian business, particularly within the IT industry. By initiating dialogue with leaders in the IT industry, WIT promotes diversity directly from the top. WIT especially advocates women and men work together and organisations build an inclusive workplace culture that fosters opportunities for both men and women; success in cultivating such an environment will only happen if senior management embody those values. The creation of the WIT network has provided a structured framework now reaching a greater breadth of women in IT. The not-for-profit organisation hosts events based in Melbourne where both women and men can extend their network, expand their knowledge and engage in open conversation and debate.

Each networking lunch is based around a trending topic in IT and/or business. Membership is free; you only pay for event tickets. Ms. Bernhardt's enthusiasm is infectious, and many a young female students who had breakfast with this dynamic CEO at one of the WIT events went into IT.

Ms. Bernhardt is also the inaugural chair of AWISE - Australian Women in IT and Science Entity (awise.org.au). The driving force behind results-oriented women in science and technology groups across Australia, Sonja Bernhardt has championed wide-scale programs creating professional and academic development opportunities, thus helping thousands of school students and hundreds of professionals. Sonja's tireless efforts in mentorship have facilitated and created programs that motivate young women to choose careers in science and technology, while enabling scientific and technical women to advance in their careers. Bernhardt's volunteer work in IT especially for increasing the career uptake and profile of women in technology has been widely recognised through a number of awards. In 2011, Ms. Bernhardt was bestowed the Order of Australia Medal (OAM) for her contribution to the IT industry.



Source: www.sonjabernhardt.com

3.1.2 Profile of a Company

Ms. Bernhardt is not only the CEO of ThoughWare, the parent company for 'i.on my' software, she is also the brainchild behind this fully integrated healthcare solution.

Aged Care Community Care Retirement Villages

Indigenous Services Disability Services Hospitals

- ✓ Create custom forms and automate functions and escalation.
- ✓ Dynamic, powerful checklist and action capability that ensures your “To Do” Items are managed.
- ✓ Alerts for what you need to know, when you need to know it.
- ✓ Staff can remotely access client, care or service assessments.

- **GOVERNANCE**
Knowing what to do – understanding, documenting and managing organisational processes and controls.
- **RISK MANAGEMENT**
Standardising processes; mapping to ISO31000 compliance.
- **COMPLIANCE**
Doing what you say – Monitoring Policies & Procedures, Incidents, Accidents, Infections.
- **ACCREDITATION**
- Saying what you know – addressing auditor needs and reporting as required.
- **QUALITY**
Embedding continuous quality improvement into key processes.
- **HR WORKFORCE**
Managing your most valuable asset – your staff.
- **HR COMMUNITY**
Caring for members of your community

The first aged care client was signed in February 2008 and initial clients were micro and single site users. Today, as a testament to the quality of the solution and organisation’s capability, the company is an important player in the Medtech sector, which sports more than 500 companies in Australia and combined employ some 20,000 workers with a combined annual turnover of more than \$10 billion. More than 65,000 people in 100 sites across Australia are under the care of i.on my software. At present, i.on my clients include multi enterprises – including residential community, retirement, family care and childcare services) and multi residential facility groups. The platform is also used by hospitals, retirement, community care, disability, aged care and indigenous service organisations.

Charles Slade – Host of Channel 9 Show ‘Your Business Success’:

“A quality niche product that has been embraced by all who have seen it”.

Quality Customer Service and Frequent Communications

What sets ThoughtWare apart from other e-health platforms is its personalized way of catering to customer needs. In-depth platform knowledge starting from its leadership to its employees transcends quality service to customers.

It typically takes less than three days to connect systems and aggregate data into the platform and take control of the system’s powerful capabilities. Service organisations benefit from the fact they can automatically import, analyse, generate, trend and report on key data from finance, payroll, HR, rostering, insurance, clinical, web forms or an industry-specific application.

More than 350,000 transactions are managed by i.on my in any one day and approximately 500,000 alerts and reminders are triggered. The platform provides free online learning materials and 24/7 support via its support site and a toll-free telephone number. An automated traceable support ticket system captures clients’ support needs, which allows the enterprise to continuously improve on its own service delivery. The company maintains a news section on its support website, posting new software versions or patches so clients are always up to date on their i.on.my software. The company also has a knowledge base where they post useful information for general use of their clients. The knowledge base also includes video tutorials.

Quotes from i.on my customers:

“One of the best features and points of difference with i.on my is its ability to capture email responses to actions assigned to people. This helps quickly build a record of milestones in the life cycle of an action without the need for specialist data entry”

“The ability to interface with other vendors is very useful in eliminating duplication of data entry”

“Just a short note to say how much I love the recurring follow up to actions enhancement to i.on. The ability to automatically check how things are going every x days is sooo powerful!”

Core Operations and Team

A particular characteristic of the business is that the only maintains a small on-shore team and outsources/nearshores certain IT processes and human resource needs. Nearshoring is the practice of transferring a particular business operation to a nearby country, especially in preference to a more distant one where time differences may interfere with delivery of services in real time. Other benefits of nearshoring include geographic proximity, cultural, social, linguistic, economic, political and/or historical linkages with the country, sometimes even sharing a border.

ThoughtWare is not alone in the nearshoring trend. Over the past five years Australian companies have increasingly been offshoring tasks online, generally a combination of technical and non-technical tasks including such tasks as freelance writing, design, web development, internet marketing and more recently finance and legal. Aside from having technical and non-technical jobs filled by outsourced labour, there is also a very high statistic that Australian enterprises today venture into offshoring services. For example, contact centres are popularly outsourced by Australian businesses just as companies in the United States and the United Kingdom have and continue to do in countries such as the Philippines and India. Thousands of Australian IT and high tech jobs are being shipped across the Tasman to New Zealand as firms chase lower wages and less restrictive labour laws.

ThoughtWare ensures its team feels equally valued as its customers. Since its inception, the company has offered extreme work flexibility providing more opportunity for women employees to join the company. As a result, ThoughtWare has always had an exceptional female to male ratio, ranging from 60 per cent females up to 90 per cent female employees – including across technical aspects of design and coding – driven by the CEO’s personal passion for women and technology, where she insures that she practices what she preaches.

“I love having my own firm and being able to offer opportunities to people who seek genuine life flexibility, and more specifically to be able myself to offer jobs to females who are coders”.
“We embed flexibility into not only our software but into our work and ourselves”, explains Bernhardt.

Team members identify their training needs and they are supported (time and financially) on a needs basis. Most training occurs in-house from person to person via knowledge sharing, however external training is also available.

With company team members spread across multiple countries, it is not only important to communicate frequently with clients but also to communicate with each other to maintain a cohesive team. As a result, ThoughtWare heavily relies on communication technologies such as

online chat and meeting rooms. Commercial platforms such as ‘goto meeting’ and Skype are key tools for the company. As a company in the technical support field ThoughtWare uses tools of the trade as part of daily practices – things such as online meeting ‘rooms’, discussion forums and collaborative document sharing are all part of a regular day. This strategy has earned the company several awards.

ThoughtWare Chief Technologist Tiffany Mulholland:

“During my time at ThoughtWare I have advanced through many roles and promotions, which is all thanks to the great working environment and team members who are part of the team. We are extremely lucky with the flexibility that is offered to us. It is that flexibility that I believe makes us work harder and ultimately achieve our goals faster and more efficiently because we do have the freedom to choose our own hours, working location, etc.”

ThoughtWare Client Services Manager Michelle Kruwinnus:

“I have thoroughly enjoyed my ever expanding role within the team. The flexibility is greatly appreciated and, as a mother of three, a benefit to working for ThoughtWare that I call upon quite regularly”.

Quotes from i.on my customers:

“The i.on my team are a wonderful bunch of people, they really are all so individual and gorgeous”;

“i.on my staff are all very helpful, knowledgeable and friendly”.

Company Milestones and Challenges

The table below shows the notable historical highlights of ThoughtWare throughout its 18 years of business operation. The table also denotes the major challenges faced by the company.

Table 1. Business Milestones and Challenges

Milestone	Year	Challenge
<u>The Beginning</u> Establish initial technology consulting business, Including company registration.	1999	Sourcing clients – this was addressed by attending multiple networking events and reaching out to others for consulting assignments.
<u>The i.on my Idea, Planning and Design</u>	2005	A loss of 3 months productivity as 3 people from the business were focused during this time on

Milestone	Year	Challenge
Business expansion beyond reliance on human consulting resources into product development		business planning required to diversify the business, followed by product development.
<u>First Strategic Client</u> Initial product was developed and we went to market to seek clients	2006	Required considerable financial investment in attending multiple trade shows and events to promote the brand (borrowed from own 'war chest').
<u>New Market Expansion</u> Decision to expand into aged care (gained first aged care client in February 2008)	2008	Needed to both expand and go 'back to the drawing board' to enhance the solution to map to real client needs versus own thinking on what the market needed and what was built.
<u>Award Recognition</u> Received three awards in national aged care awards making quite a splash entrance as a new player	2009	Being new to a market of many players in the clinical care space, the company offered a Governance, Risk and Compliance platform that was not yet a key priority for immediate purchase decisions (ahead of its time) - the challenge was capitalizing on the media splash and turning that into sales.
<u>Growth</u> 1 st to market in the aged care space with iPad enabled solution 50% increase in clients signed	2010	Getting the price right was far more of a challenge than expected. Adjusting prices upwards attracted more clients (and revenue) thus proving the old adage: 'if it's too cheap people do not believe it is valuable'. Experimented and failed with a number of partnerships/alliances.
<u>Honours</u> CEO awarded OAM, ThoughtWare debut as the 16 th company in the Business Book of Lists, gained multiple services clients. Began overseas expansion (NZ and Singapore explorations)	2011	Returning to core business versus promotional and PR activity and focus. Chased down 'many rabbit holes' wasting time, money and hope on ideas that were not commercially viable. Balancing the internal need to serve all customer requests vs. managing the scope of functionality.
<u>New Look</u> Launched new look and feel solution Began social media activity	2012	Keeping up with market expectations and technology changes yet maintaining a robust platform challenge meant tight scope control was required. Extra cost and flexibility of team and skills required to support activities (this was resolved by nearshoring some resources).
<u>Continued Success</u> Doubled resources to a team of 20 Added more than 2,000 daily users to the client base	2014	Competing on tenders with larger firms that had significant people and money resources weighed heavily against the enterprise.

Milestone	Year	Challenge
<p>Took out the national award for ICT company of the year.</p> <p>Clients continued to win awards for their use of the platform</p>		<p>The >80% female coding team, technical resources and extreme work flexibility – was at times a negative in gaining clients – the company received comments such as ‘no men were on the pre sales team’, ‘the hair styles were not corporate enough’. As a result, the company had to fight harder to prove its credibility.</p>
<p><u>Platform Redevelopment</u></p> <p>Version 4 redesign released (Dec 2016) with Version 5 for Q1 2018</p> <p>Client base now extended across all states and territories of Australia (city and regional based - More than 60,000 people under the care of our platform.</p>	2016	<p>Software development is never complete - it always needs refreshing, redesign and new features. Software updates require significant financial and technical resources for ongoing currency and client activity.</p>
<p><u>Females in IT statistics</u></p> <p>ThoughtWare continues to maintain >80% female team</p> <p>Closed out the year with a sales pipeline that is expected to result in financial growth of at least 200%</p>	2017	<p>The company’s unique work flexibility including working from anywhere in the world promotes attraction and retention of female team members. Conversely, it has, at times, led to loss of productivity and a delay in software development for the company.</p>

3.1.3 Findings

3.1.3.1 Success Factors

ThoughtWare commenced as a consulting company in 1999 and then branched out into software development in 2006. The success of the company may be attributed to many factors as shown in the above sections. Clients acknowledge ThoughtWare as one of the pioneers of an integrated e-health solution that reduces risk and enhances decision making through timely processes. In particular, the inter-operability and consistency of the unique software solution provides clients with auditable and searchable trail of documentation across all its programs.

The following section highlights the top four attributable success factors of the company

Meeting Market Demand

Lon my software began as a business plan. With the popularity of digital devices such as cell phones and tablets, it was crucial that its business plan correctly assessed the implications of digital dependence and the presence of technology in our everyday lives. According to the CEO,

“In recent years, the societal impact of technology cannot be ignored as we become increasingly more connected and are presented with more digital tools and devices. Too many people design technology solutions without having a market.”

In reality this requires adopting an entirely new way of thinking and of course it requires resources.

“Hard work, but in the end it is all worth it when your company can experience the satisfaction that your technology ideas meet market demand”.

Staying Current

The company is particularly alert to the fact that the business environment changes rapidly and their software development plans and marketing strategies need regular reviewing and updating.

“I review (and if necessary recast) our marketing, call center, clients and financial plans and measures annually if not every six months”

Ms. Bernhardt explains to ensure the company stays current. This approach is particularly necessary in the medtech industry in Australia within which there is both a societal and economic imperative to address the fundamental challenges of transforming and innovating in meaningful ways for healthcare providers, clinicians and ultimately the Australian patients they serve³.

Managing Nearshoring and Flexibility

Maintaining a small on-shore team and outsourcing/nearshoring certain IT processes and human resource needs has allowed the company to manage its human resource needs. Outsourcing/nearshoring also is a cost control method for ThoughtWare as a way to ensure flexibility to upscale or downscale as needed. The company outsources some of its online service needs to firms and websites that offer specialist skills. This has helped the company manage its growth pattern but also provided its challenges. According to the CEO,

“labour costs and related entitlements are expensive in Australia so nearshoring is an attractive option for us.”

Value Creation for Clients

In the integrated software business, success relies heavily on creating value to all parts of a client’s business ecosystem. Striking the right balance between functionality, reliability and consistency on the one hand and good customer care outcomes and savings is not an easy task.

³ http://medtechactuator.com/wp-content/uploads/2017/11/MedTech-Paper_When-Australia-Innovates-The-World-of-Healthcare-Changes_.pdf

ThoughtWare has taken the extra step to build in software functionality that does just that. It addresses the need for pathways to older systems, simple programs that require minimal training and business disruption and building tools that allow business staff to focus on providing quality services and care instead of on paperwork and compliance. This has helped create a culture where clients are empowered to act to protect their brand. According to the CEO,

“Delivering this type of value to customers not only positively addresses healthcare organisations’ duty of care, it enhances both their confidence and our reputation”.

3.1.3.2 Challenges

ThoughtWare has experienced major challenges over the 18 years the company has been in business, including multiple global financial and other crises. Some of these challenges brought valuable lessons that made the company stronger. The following section focuses on key business difficulties encountered by the company.

Lack of Resources

Statistics show us that a significant number of enterprises fail in the first five years. I. on my started with two resources and was initially slow to market, however since 2012 has experienced rapid growth, doubling resources in 2013 to a team of 15 and in 2014 to a team of 20, just breaking the SME barrier. Especially at the start-up phase of her business, the firm struggled to get the right resources in place. The CEO took three resources out of her start-up for several months to work on a structured business-planning program with mentors to assist the formulation of the business plan. She used her networks to find the resources she needed and

“Is a firm believer in business planning even if it slows down the development of the enterprise”.

Getting the Product and Pricing Right

ThoughtWare was also conscious that they had to develop a practical product. Sometimes technologists just develop software because they can and because they think it is a good idea. They are problem- rather than solution-focused. Thoughtware started out that way but early on engaged and listened to its clients to ensure it developed practical software. *“In today’s market inclusive design is imperative for product success”*, explains the CEO.

Another one of its challenges was getting its pricing right. *“I was surprised how difficult it is to get the price right”*, comments Ms. Bernhardt, citing the age-old classic of ‘start your price too

low and you are viewed as cheap so the product must be poor quality’ vs. putting your price too high and you struggle to get a sale’.

“We didn’t get it right to start with and then had to do a marketing/PR exercise to adjust the price up to market value”.

Maintaining Quality Customer Service with a Small Team

While a growing customer base may be good for business, it often requires an increase in human resources to deliver efficient and quality customer service and maintain a good business reputation. Delivering quality customer service through rapid response time is a key factor in this and any online business. Thoughtware was and continues to be highly conscious that rapid response time is pivotal to maintaining its customer base and that lagging response time could result in a loss of customers.

Given some 350,000 transactions are managed by i.on my in any one day and 500,000 alerts and reminders are triggered, the small team has to be able to respond in a timely fashion. Although Thoughtware’s unique automated traceable support ticket system adequately captures clients’ support needs and allows the enterprise to continuously improve on its service delivery, there is a constant need to balance human resources and client needs. *“Flexibility is our key strategy to cope with fluctuating client support demand”*, according CEO Sonja Bernhardt.

ThoughtWare’s extreme work flexibility is underpinned by a *non*-belief in work-life balance, which is generally presented as a balancing act and implies that when you are busier with one side of that ‘equation’ the other side suffers. Instead, ThoughtWare’s philosophy and core values are about individuals and thinking, with people accepting adult responsibility for what they do and when they do it. This translates into people deciding their own days of work and hours, including flexible periods of leave. While the company’s unique work flexibility – including working from anywhere in the world – has greatly helped attraction and retention of female team members, the company has, at times, been challenged by this policy, experiencing both loss of productivity and a delay in software development and upgrade rollouts.

3.1.3.3 Policy Recommendations

The first four policy recommendations below pertain to advancing (IT) women’s entrepreneurship in general followed by a recommendation for the (med) technology sector in particular:

Balance between Control and Support

Bernhardt is generally not in favour of controlled regulatory and policy environments as she believes such regulations restrict creativity and entrepreneurship. In Australia, the industrial relations laws can almost stifle a company and certainly are a burden at a time when quick to market with innovation and creativity are likely to be key to success. A heavy taxation environment can restrict organic growth in the early years. The CEO would prefer 'get out of the way' of entrepreneurs, let the entrepreneurial idea/concept have a few years in the market to test the business case and support start-ups through reduced burden such as high taxes. This type of policy would result in less business failure. To support early stage activities in her own company, Bernhardt did apply for an Australian Government Research & Development tax incentive – this saw some reduction in tax payments and more funds returned to the business to enable growth. It allowed her to diversify her consulting firm and transform it into a medtech software company. A good example of why it is important for policy makers to find the right balance between control and support.

Gender-Responsive Enterprises and Ecosystems

Even in economies with favourable enabling environments such as Australia, there is room for improvement of the entrepreneurship ecosystem firms like ThoughtWare operate within. All ecosystems contain a complex set of actors and interdependencies within a local or regional environment strongly influencing entrepreneurial activity. While women-led enterprises are not inherently less productive, the so-called second glass ceiling – a gender bias that obstructs women-led enterprises from equal access to ecosystem aspects such as finance and markets – prevents women-led (IT and Smart Technology) firms from reaching their full potential, with the cost of this second glass ceiling being borne by the entire economy.

Individual enterprises as well as entrepreneurship ecosystems can be made more gender-responsive by including more women, mapping multi-stakeholder roles within the ecosystem and strengthening those domains that enable a conducive culture to support women entrepreneurs in the digital economy such as availability of appropriate finance, human capital development and other targeted educational and skills support.

Support Internationalisation

Although software in and of itself is not difficult to export, especially cloud based services and platforms, there is a general lack of support for IT women entrepreneurs wishing to reach new markets. Gender-specific business and trade support is generally undervalued and the trade landscape is evolving fast. Facing budgetary constraints, trade officials struggle to meet the increased demand from both male and female entrepreneurs, believing gender neutral trade support can adequately serve all would-be exporters.

What matters to potential exporters such as ThoughtWare is understanding cultures and people and having a presence on the ground. ThoughtWare's position on internationalisation is not unique and contributes to our understanding about IT entrepreneurs and the opportunities they have for global trade, especially what it takes to succeed internationally. Building the confidence of aspirational women exporters to conduct international business is an important component of improving the rate of women-led firm internationalisation. It acknowledges that the business landscape is gendered and that women-led SME are a growth sector (McKinsey, 2015).⁴

Alternatives to Traditional Women in IT and STEM Strategies

There continues to be a general lack of understanding how to nurture and assist IT women entrepreneurs in their start-up and growth efforts. A multitude of interventions have taken place, including ad hoc, systematic, and comprehensive efforts, comprising career days, computer clubs, role modelling, shadowing, mentoring, coaching and more, yet their goal of increasing the number of women in IT has remained elusive. When an approach consistently fails to deliver expected outcomes in business, the attempt is either adjusted or dropped. When it comes to nurturing women in IT, traditional strategies tend to live on.

In Bernhardt's book⁵ on women in IT in the new social era it is explained that women in IT or girls attracted to STEM see themselves as interested, competent, and above all, as people who regard obstacles as a challenge to be met and overcome. It is that strength and uniqueness of the individual core that forms the central thesis of why they are in IT in the first place. Those engaged in women in technology activities—planning, coordinating, or funding—would do well to take notice of the tectonic shift beginning in technology and society and embrace the new approaches the field enables. The fundamental solution to the lack of women in IT is the same as the fundamental cause: women are unique individuals. It is by promoting the idea that it is the individual who matters.

Investment in Deep-Tech Start-Ups

Australia has a low risk tolerance for investment in early deep-tech startups. It only tends to support past (rather than future) success and ostracizes failed innovation attempts. A compounding issue is the aggressive nature of capital markets that do not always suit early stage ventures.

⁴ McKinsey Global Institute (2015). The power of parity: How advancing women's equality can add \$12 trillion to global growth. Retrieved 04/10/15. Source from: http://www.mckinsey.com/insights/growth/how_advancing_womens_equality_can_add_12_trillion_to_global_growth?cid=mckwomen-eml-alt-mgi-mck-oth-1509

⁵ 'Women in IT in the New Social Era: A Critical Evidence-Based Review of Gender Inequality and the Potential for Change', Sonja Bernhardt, 2014, ThoughtWare Australia

Much like other governments, Australia attempts to boost opportunities within the realms of innovation and entrepreneurship, focusing on trialing programs that positions Australia as the next global innovation hub. What may have worked in other economies does not necessarily provide a ‘one-size-fits-all’ approach for Australian med- and hi-tech industries, which have many unique factors that are misunderstood. As a result, there are significant hurdles for medtech startups trying to enter the regulatory pathways, compounded by a lack of governmental listening to sectoral concerns of players in the medtech ecosystem, leading to the removal of key pieces of innovation architecture that would help boost the industry. An industry with such potential would greatly benefit from tax concessions that will give medtech enterprises a real opportunity to succeed and differentiate themselves on the international innovation stage.

3.1.3.4 Advice for Women Entrepreneurs

CEO Sonja Bernhardt describes the ThoughtWare journey as a continuous learning curve with a number of lessons that can universally be adopted and adapted by women entrepreneurs in hi-tech, low-tech and non-tech enterprises.

Know Yourself

Bernhardt’s advice for women entrepreneurs is relevant across all career and life choices. She believes it is of the utmost importance to

“Know yourself – know what you like and why you like it, understand why you react and think the way you do”.

Choose Your Career Wisely

Starting and growing an enterprise can be a daunting task. Choose your career path wisely and ensure it is consistent with your philosophy, since you will have to live with your choice.

“Women who choose their career/business consistent with their philosophy will both succeed and be happy”.

Shape Your Future

It is essential to have a vision that helps you shape your future.

“You are in the hot seat and solely responsible for what you want and how you go about it. Only you can shape your future”.

Value Your Mistakes

Being successful in business is about lifelong learning and ‘unlearning’ the things that did not work.

“Learning is a process of change and there is great value in acknowledging our mistakes. Sharing lessons learned and knowledge of past errors leads to innovation”.

Measure Your Success

It is important not to measure one’s success by the perceptions of others.

*“Designer clothes or the classic rise to the top are not everyone’s measure of success. What matters is what is important to **you**. To me being happy and inspired by my work are my success measures”.*

3.1.3.5 Summary and Discussion

This research study on the Women Entrepreneurship in the ICT/Smart Technology industry in Australia has focused on the development and rise of a female-led IT firm in the medical technology sector.

The case study has demonstrated that embracing new technologies is about recognising that the global economy has entered an era of disruptive technologies that will empower individuals and enterprises in ways we cannot predict, resulting in old power bases crumbling and new forces arising. ThoughtWare is one such force. Its CEO bravely entered a field dominated by male-led large firms generally, demonstrating that micro and small enterprises can tap into the shifting technological landscape and actively use its tools and platforms for economic and social advancement.

Women's widespread participation in employment and self-employment is (historically) still a relatively new phenomenon, and while the pace of change may seem slow, the trend is generally an upwards one. In the changing world of work, this case study has confirmed that the use of ICT and Smart Technologies offers the type of flexibility that allows more women to enter and stay in the workforce. With notable differences in participation rates of men and women's in entrepreneurship and the workforce, there is great government, academic and community need to better understand how a flexible ICT-enabled work environment can increase the attraction and retention of women in the economy and reduce participation differences.

There is no doubt there are numerous opportunities for women entrepreneurs in the IT and IT-related sectors such as the medtech sector. There are, however, still too few women taking advantage of these opportunities, perpetuating the belief that technological invention is beyond women's capabilities. Rather than trying to get large numbers of women interested in IT, the case study advocates the importance of supporting individual women who are genuinely interested in IT/STEM and entering the IT industry or starting their own IT enterprise.

While efforts are being made to address existing barriers to women's economic participation, more can be done to support inclusive development. There are many opportunities to add to the existing knowledge and skill base of women entrepreneurs so they may embrace ICT/smart technologies to fully participate in local, regional and global economic life, achieve continued development and sustainability, and generally improve the quality of life for Australian women, men, families and their communities. As the case study has pointed out, traditional policies all too often make entrepreneurs turn their back and go it alone.

Both the public and private sector would do well to foster innovation by investing in women-led technology ventures and creating inclusive enabling environments. This calls for the adoption of gender-responsive practices in local and regional entrepreneurship ecosystems that address both entitlements (access to resources to enter markets and increase productivity) and capabilities (improving digital economy skills and managerial capacity to deploy resources and increase market access). This, in turn, will encourage inclusive growth, increase the competitiveness of women-led firms, help them build the case for new products, platforms and markets, and augment economic benefits for the APEC region as a whole.