

Assessment B: Select one innovation made by your own company and analyse it with reference to the eight given elements.

The development of a unique, bespoke bottle for the Gold Range of Single Malt Welsh Whisky from the Penderyn Distillery

Synopsis

Commencing distilling in 2000, Penderyn Distillery aimed to produce a premium Single Malt, with key elements of quality, unique flavour and purity, which was reflected in a brand identity developed for Penderyn by their Brand Design Consultant and Board Member, Glenn Tutsell.

The physical form of the bottle embodied this identity; unique within the industry, a tall and elegant bottle that was regularly used to contain wine and supported the early critics comments that the whisky was light and fruity, referred to as the 'wine lovers whisky'. The branding included;

- A single gold vein reflecting the rare and precious nature of the whisky, just like Welsh Gold
- An AC logo – referencing 'Aur Cymru' or 'Welsh Gold' and, as some interpreted it 'appellation controlee', reinforcing the use of a 'wine bottle'

The distinctive packaging, a box with an open front and back, displayed the colour of the liquid inside the bottle within it. This differentiated Penderyn in the sector and gave a 'stand out' presence when 'on the shelf'.

In 2016 the Board decided to refresh the brand identity of Penderyn Single Malt Welsh Whisky. In a series of meetings, a brief to redesign the bottle was developed and articulated. The bottle was to;

- Modernise the look and feel of the brand
- Highlight the unique nature of the liquid within and its association with Welsh Gold's purity
- Reflect the confidence of the brand
- Deliver significant 'standout' on the shelf
- Allow the Company to tell its story of quality, difference and place to its customers around the World
- Use these concepts to drive sales performance

It was determined that the brand had reached sufficient maturity and confidence that a novel, unique and bespoke glass bottle would be developed using external expertise. This innovation commenced in late 2016 and is described further in the following paper.

(a). The principle Drivers for the Innovation

Innovation is the driver of a Company's growth and competitive success (Schilling 2005, Baporikar 2015). Innovation can occur in products, processes, services and business models. The particular innovation being considered is in the packaging and presentation environment which, according to D'Attoma and Ieva (2020), highlighting the work of Medrano and Olarta-Pascual (2016) 'should be regarded as critical technological innovations for enhancing companies' competitiveness'.

Raymond Vernon's 1966 Product Lifecycle (Mulder 2012) breaks the evolution of a product down into four stages (see Figure 1: The Product Lifecycle)

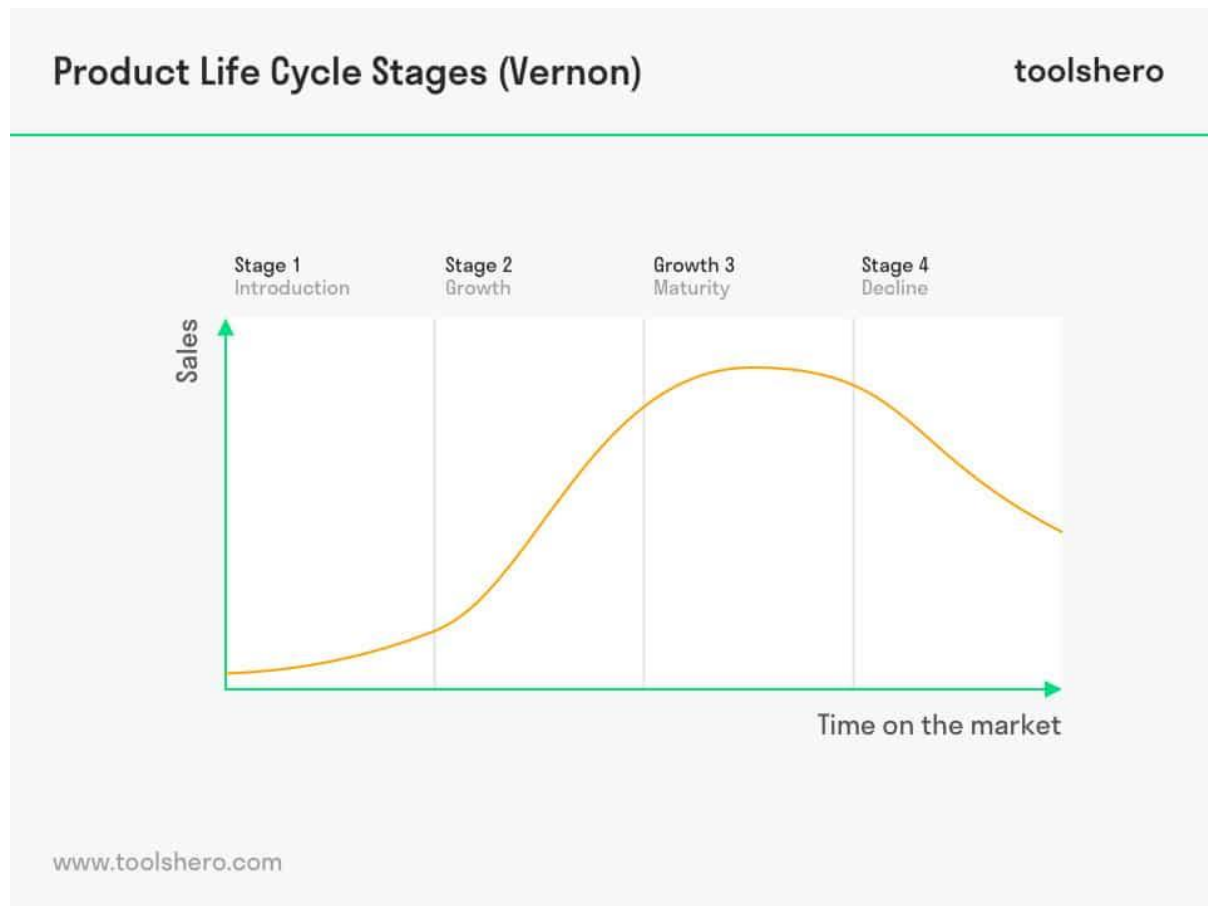


Figure 1: The Product Lifecycle

Considering the brand was in the maturity stage, the Board decided to develop a bespoke bottle to drive growth and reinforce brand identity. This unique, innovative bottle would maximise the competitive impact of its introduction.

The factors considered as being the material drivers for the program include;

- (1). Brand recognition – the new design recognised the key marketing messages (a unique brand, rare and precious like Welsh Gold, with a long heritage) and included modern elements that were appealing to a 'younger audience'
- (2) Shelf 'standout' – the bottle would be readily noticed and then recognised, particularly within multiple outlets (where purchase is often as a gift), the appearance enticing purchasing behaviour
- (3). Brand reinforcement – a bespoke bottle, developed by a 'smaller player' within the category, would be a statement about the maturity, uniqueness, quality and rare nature of the brand and liquid inside
- (4) Growth, in volume, value and distribution – due to typical SME resource constraints (finance, manpower, organisation, processes), the finite marketing activities of the organisation would revolve

around this 'new and unique' product, leading to growth, via new customers sampling, and increased distribution as buyers sought individuality within their range offering

The strategic focus on market orientation was a fundamental driver of this particular innovation. As described by Lestari et al (2020), this would drive the added value of the product family, making consumers more interested in buying these products rather than competitors. Further, as Ferreira et al (2015) note about the Tidd and Bessant (2009) model, this particular innovation could be inherent in product revival.

(b). The barriers and risks faced by the Company in developing this innovation

Introducing innovation has inherent risks and barriers. The literature identifies these as being related to the organisation itself (internal barriers) as well as others related to the external environment, which are generally outside the control of the company (external barriers) (Torres de Oliveira et al, 2021), with failure rates around 40% (Castellion & Markham, 2013; Heidenreich & Kraemer, 2015), as reported by Joachim et al (2018).

(1). Internal barriers – including;

- Design and development capacity appeared to be absent from the organisation. However, through the relationship with a non-executive Board member and his engagement as a consultant, it gained access to years of experience of a top 'creative' in the industry, Glenn Tutssel
- Production development – the interpretation of the designer's intent was given to the suppliers of the organisation's glassware, Saverglass, based in France. The language and location of their facility added complexity to the development
- Production competency – the bottle design was an unknown, potentially beyond the capability of the operational equipment

(2). External barriers – including;

- Financing of the project – Pellegrino (2017) comments on the difficulties young companies face in accessing collateral. This was addressed through the commitment of a significant share-holder and a 15-year relationship with a single bank. Costs associated with the mould development were deferred by the supplier on the basis of a longer term, sole supplier arrangement
- Customer acceptance of the new design – Joachim et al (2018) discuss consumer rejection and the concept of Active Innovation Resistance (AIR) and the typology developed by Talke and Heidenreich (2014). Of the 17 barriers identified, the value barrier, where no relative advantage of the innovation is perceived by the customer, was the most significant with the highest long term impact risk the company faced
- Security – as this was a 'first to market' approach (the design was certainly novel), utilising a third-party developer and manufacturer, the risk of 'knowledge leakage' was a threat. However, long-term relationships and professional reputation meant that this was a risk the company were prepared to take

The organisation always had an entrepreneurial approach to business, fostered by the main shareholder and executive officers. A characteristic of this has been the 'risk appetite' and understanding of the need for investment into the business, both financially and in terms of commitment, resulting in a 'can-do' approach.

(c). The key determinants in the process of committing to develop the innovation

A determinant is a factor that decisively affects the nature or outcome of something. This innovative development of a product, a bottle, by a third-party supplier, had three overarching determinants within the process;

- (1). Key Senior Management commitment– Psomas et al (2018) showed that successful innovation is greatly influenced by top management. The Board were the ones who would make the final decisions, it was their experiences, assessments of the options and associated risks which would be a key factor in the outcome and success of the process. As Psomas et al (2018) highlight, 'Kumar and Sharma (2017) note that the leaders' quality personality ensures that a suitable innovation process is chosen'. With limited budget, the importance of getting the process right, not expending funds and resources unnecessarily, cannot be understated
- (2). Selection of the designer – If, as Romero and Martinez-Roman (2012) report, 'Innovation, as the result of a process of knowledge accumulation, benefits from previous experience in a particular field (Koellinger, 2008)', then the selection of the designer, with 50 years experience in the sector, wasn't simply the appointment of a non-executive Board member colleague
- (3). Selection of the supplier – the technical skill, ability and know-how required to produce a multiple angled shape was a key issue in the selection of the production partner. Having interviewed a number of candidates the development and lead time, its associated impact on time to market, the commercial considerations and a cost-benefit assessment resulted in Saverglass being selected

(d) The processes and technologies which the company used to carry this development forward

The Company loosely followed a decision-stage model, based on Cooper's stage-gate process, as described by Trott (1998). This can be summarised as;

1. Strategic intent - based on data available and analysis, customer feedback and a desire to differentiate products, the Board determined that a bespoke bottle would be developed
2. Idea generation – following a general brief a number of design ideas were generated
3. The selected option was shared with potential suppliers for comments on the design achievability, lead time and cost
4. The selected supplier ran their version of the stage-gate process (please see Figure 2: The Stage gate process), developing moulds, generating a sample, in an iterative loop with the Company, until an acceptable sample was arrived at
5. This sample was initially signed off
6. This second sample was discussed with the Board and approval confirmed
7. The bottle was produced, decorated, and passed through the suppliers QA procedures prior to delivery



Figure 2: The Stage gate process

The technological aspects of the development included (see also Figure 3: Concept evolution);

1. Initial concept drawings generation
2. Conversion to an acrylic model
3. Sharing concept drawings with the preferred supplier, who generated a detailed set of technical drawings
4. Review and sign off before the drawings were shared with the suppliers preferred mould manufacturer
5. Moulds were then cast
6. Utilising their technological understanding of glass temperatures, glass flow and mould dynamics they produced and decorated a sample, according to the 'decoration file' (previously electronically generated), setting the elements in the correct place for screen printing
7. Review captured the issues/concerns, for example, initially the 'shoulders' of the bottle weren't horizontal to the base, and changes were made to the moulds, the flow dynamics and some of the decoration elements
8. Following further review, the new bottle was put into full production
9. Throughout manufacturing, QA procedures were applied, involving manual inspection and measurement of the glass proportions, in-line weight measurements, automatic crack detection and so on

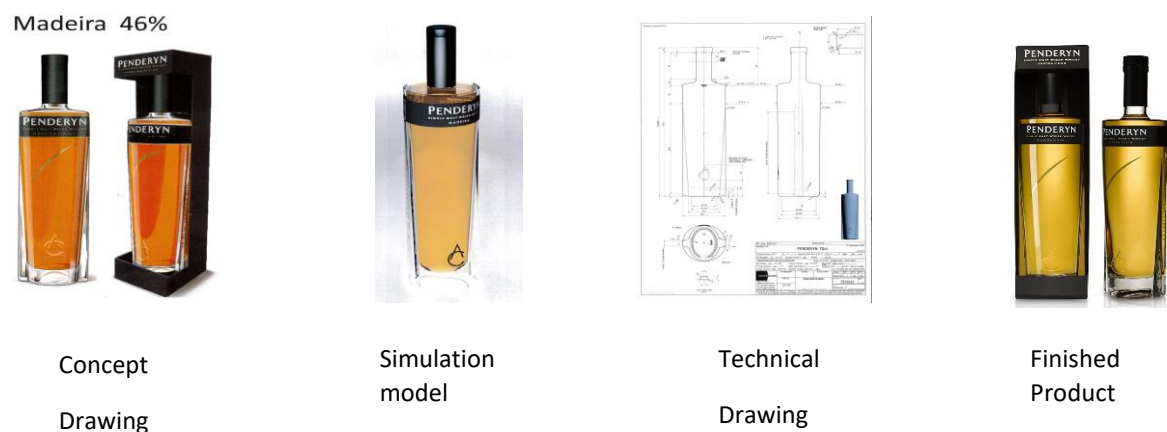


Figure 3: Concept Evolution

(e). The extent to which the development relied on resources external to the company and the ways in which these resources were managed

Small businesses with constraints around resources and knowledge, cooperate with other organisations in order to bridge those gaps, generating a positive impact on innovation performance (Romero and Martinez-Romain, 2012; Torres de Oliveira et al, 2021). Trott (1998) includes the work of Chesbrough (2006) highlighting a move in innovation towards open systems of knowledge transfer including 'partners' up and down the supply chain. Due to the knowledge constraints within the organisation, this innovation project relied completely upon external resources to the company;

- Eventhough the designer was a Board member, they were engaged as a consultant and paid for this element of the work, giving access to years of successful design and development and the influences of many other projects that had been worked upon.

- The glass supplier selected, despite being slightly more expensive than competitors, demonstrated the quality, performance, technical ability and visual aesthetic required at their production facilities. Through a commercial arrangement, which saw them secure certain volumes of glassware supply in exchange for carrying out the difficult, and costly, design and manufacture of the bottle moulds, the Company entered into a partnership with the supplier. Whilst this could be seen as simply an outsourcing activity, in reality this was more a collaborative engagement (Schilling 2005). In technical discussions about the critical aspects of the glass appearance, they identified, explained and demonstrated some of the constraints of producing glass in moulds to exacting tolerances and new, very specific, measurements and angles. This frank exchange of ideas allowed for the determination of an acceptable product, which could meet the intricacies of the design concepts but was also feasible to produce.

Management adopted a Project Management approach. Timelines for production were constructed and key milestones identified and production time versus launch date considered, resulting in the supplier compressing the sampling stage in order to meet the requirement. Progress was monitored regularly and data exchanged electronically throughout. There were visits to the suppliers' facility, incorporation of further ideas and resolutions to the issues experienced by practically producing a sample. As both companies were effectively operating a stage gate process, this allowed decisions to be taken in a structured and formal way to ensure that the end goal was achieved.

(f). How management overview of the development was maintained

The management and progress of the project was enabled utilising a Project Management approach. In what could be described loosely as a matrix structure (Trott, 1998), a cross-functional team, involving principally external resources, was established. The selection of the partners was based, as described by Schilling (2005), on;

- the resource fit – the degree to which the complimentary resources could be integrated to deliver value in the project.
- strategic fit – the compatibility of objectives and styles. Whilst there was a cultural/language barrier with the French supplier, their desire to develop a unique bottle, demonstrating their skill and technological know-how, aligned the outcomes

A timeline for the program was discussed, with key- milestones being identified and time boundaries applied, allowing a 'plan' to be developed and a reporting mechanism to be established. Practically, there were frequent calls, electronic exchanges of technical information and numerous 'face to face' meetings with the designer allowing the physical demonstration of the design intent and communication of the 'passion' associated with it – a fundamental element of the 'brand' and its story.

A stage gate methodology was employed, monitoring and 'controlling' progress. The gates were the 'milestones', with the team managing their processes to get to the gates on time. Slippage and risk was discussed at the beginning of each phase with mitigation strategies developed. The whole program relied upon agility and shared determination to achieve the goal, without compromising on the quality of the end product.

A degree of 'governance' was offered by briefing at Board Meetings, allowing challenge on delivery, both in terms of time and ultimate product.

Based upon output, the management worked well, but came at a cost, in the amount of time and effort expended. As in many SME's, the team member driving this project was operating on a 'part time' basis, so co-ordinating and managing the progress of others was certainly challenging. The delivery of the strategic requirement was met and the visual/physical impact of the new product was

achieved. Based on the subsequent sales volumes it also succeeded – as highlighted by D’Attoma and Ieva (2020) “Product package is a very influential medium because it is present at the crucial moment when the purchase decision occurs (Orth & Malkewitz, 2008)”

(g) The extent to which you feel this innovation represents best practice

This program could be viewed as simply a transactional process; the Company required a new shaped bottle to deliver their product and engaged on a procurement process, but this would fundamentally underestimate the innovation that was undertaken as a creative idea was sought, developed and delivered. The program included elements of good/best practice, as described by;

- (1) Trott (1998)
 - a. Cross-functional/matrix teams
 - b. External resources to provide/share knowledge
- (2) Satell (2017)
 - a. Key partners, resources and activities (elements of his Business Model Canvas)
- (3) Romero and Martinez-Roman (2012)
 - a. The acquisition of knowledge benefitting from past experience in the field and generating innovative/creative ideas
- (4) Schilling (2005)
 - a. External resources adding value – the concept of resource fit as a method of partner selection
 - b. Outsourcing/contract manufacturing as a view of the interaction with the preferred supplier

Whilst demonstrating these cohesive and co-operative elements, in practice there was no ‘master plan’ to bring them together and form an ‘operating model’. Also, it would be unfair to say that they were simply a series of ‘happy circumstances’; the previous experiences of the Board and Management team had demonstrated the impact of these elements and there was an understanding they could result in a successful innovation. There was no ‘planning meeting’ to review the theory of innovation management, more a strategic decision to develop the product and the energy, flexibility and determination to make it happen.

(h) Critique of the whole innovation and an evaluation of the success of the innovation

This innovation wasn’t based on a ‘theoretical model’, rather the entrepreneurial experience of the executive team. Critiquing the process demonstrates it reflected some of the current thinking on innovation management and delivery;

- Senior Management buy in gave the impetus and drive to achieve the result
- The Board’s risk management/appetite generated an environment where calculated risks could be taken, ‘mistakes’ made and lessons learned
- The limited amount of primary data led to generalised, ambiguous/non-detailed specification of design brief. There were also unrealistic expectations of lead times
- The ambiguity was resolved via the relationship with, and experience of, the brand designer
- Based on their history of innovation and design, the glass supplier displayed their technical capacity and ability. The subsequent long-term agreement gave them a ‘mutual win’
- The executive team demonstrated their ability to manage remote partners, ‘deal with chaos’ and deliver, but this did detract from their other duties
- A significant shortfall in the whole project is the lack of a ‘formal’ system or process to codify and set out the ‘route to success’ of the project. As Chang and Hughes point out, “SME’s

also differ from larger firms in terms of their tendency to be less bureaucratic, structured and diversified (Forbes and Milken, 1999), possessing fewer formal systems and procedures and fewer planning activities (Busenitz and Barney, 1977)". This may mean that a number of the 'hard lessons' need to be learnt again.

This innovation delivered significant success, demonstrated by the sales volumes (see Figure 4: Sales Volumes) and fulfilled the strategic intent of the project.

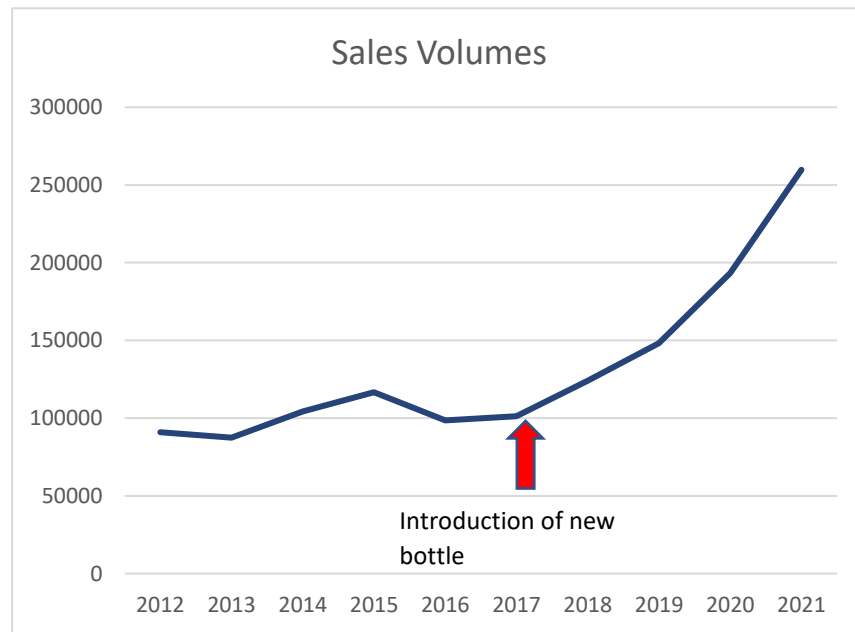


Figure 4: Sales Volumes

As Stephen Davies, the Company's CEO put it, "the new bottle design has visually demonstrated the qualities of the Penderyn brand (rarity, uniqueness, premium nature) in a form that consumers can recognise at the point of purchase, reinforcing our story of a journey to excellence and reflecting in our sales volumes, across the globe".

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