

COMODAL

COnsumer MODels for Assisted Living

DEVELOPING NEW BUSINESS MODELS IN THE eALT SECTOR

RESEARCH FINDINGS FROM
THE COMODAL PROJECT

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EXECUTIVE SUMMARY

Four new business models for the eALT market have been proposed, based on extensive research into the structure and limitations of the existing market.

All four models have been validated to various degrees by a series of industry experts, each with its own strengths and weaknesses, and each being appropriate to different contexts. But importantly the business models do not exist in isolation. They are part of the wider context, and any proposed change needs to consider that context, and aim to influence external factors to increase the chances of success for any firms adopting one, or a combination of these new models. The most prominent example of this is the need for both external and internal methods of generating both education and information.

By far the issue that elicited the most comment across all the models was the value proposition. This is understandable in many ways as it is the reason that customers, or a particular customer segment will patronise one particular firm over another. It is the combination of products and services that a company delivers to a customer group that they will perceive as valuable. And in the value proposition is the essence of the success of the new business models. Here the emphasis must be on good design, and consumer choice, also on delivering the required trust, through either recognisable quality standards (for goods or services), or through a brand that can stand in proxy and deliver trust in a different way. Additional levels of confidence can be developed through demonstrators, and opportunities to assess reviews from previous or existing users. Add in a convincing post purchase support offering and five of the eight customer identified barriers to the development of the eALT market have been addressed.

Another important factor if we are to encourage a 'step change' in the market, is the catalyst of key partners working together to provide complementary products and services which satisfy consumer needs. Existing strong brands are an important part of developing the trust that consumers demand, but larger companies can benefit through working with smaller, more agile firms that have lower fixed costs and greater flexibility to move into new areas. They can often also provide the additional level of (after sales) service that gives reassurance to consumers. Although Model 3 'the Broker (Independent Advisor)' is well supported by both the consumers and the industry experts it deals with only one, albeit important aspect of the future high level business model. It is a highly focused trusted information provider, leading to the purchase of appropriate products and services. Although this may be necessary, it is not sufficient, without the development of Model 1 Complementors, and Model 2 Diversifiers, and Model 3 Insurance.

One of the experts argued that demand isn't necessarily waiting to be exploited, sometimes you have to create demand, or, it might be argued you need to 'help it along a bit'. Mason in her research into business models commented, "Markets aren't just 'out there' - they need to be made (Mason, 2012). Both of these comments again emphasise the advantage of large scale business with a trusted brand easing significant parts of their existing customer base into related (to some extent) products and services incorporating eALT, but importantly providing solutions, not selling "products".

If change is to operate at scale one of the most likely models to succeed is model 3 - Broker (Independent Advisor) through its ability to support service solutions and provide advice to the consumer.

ACKNOWLEDGEMENTS

This report is authored by Dr. Gerry Urwin and summarises the research involved in Work Package 2 of the COMODAL research project. The aim was to develop a clear understanding of the consumer perspective of the barriers and enablers to the development of the electronic Assisted Living Technologies (eALT) market. It was also to increase understanding of the industry perspective of the eALT sector, and to develop new proposed business models for this sector.

Thanks are due to the participants who have given up their time to take part in this research and to share their experience of the Assisted Living Technologies sector. It is much appreciated.

This is part of a three year project known as COMODAL – Consumer MODEls for Assisted Living. COMODAL is led by HDTI in partnership with Age UK and Grandparents Plus, as well as Years Ahead and SEHTA, as part of the Assisted Living Innovation Platform. The research is funded by the Technology Strategy Board.



INTRODUCTION

This report is the final stage of Work Package 2 of the COMODAL research project to analyse the electronic Assisted Living Technology (eALT) market potential and propose new business models to take the market forward. Consultation with consumers and customers¹, senior industry figures and representatives of other key stakeholders was carried out using a variety of research methods, including a market analysis, a large scale street survey and a series of focus groups and co-creation workshops to identify barriers to market development, and identify enablers to overcome those barriers. Details of the early research and engagement with stakeholders can be found in Ward & Ray (2012), Lethbridge & Holliday (2012) and Ward et al. (2011).

The research with consumers, designers, and experienced industry representatives allowed the development of a model of the existing industry situation, from which future new business models could be developed. The high level business model of the current situation is illustrated in Figure 1. below.

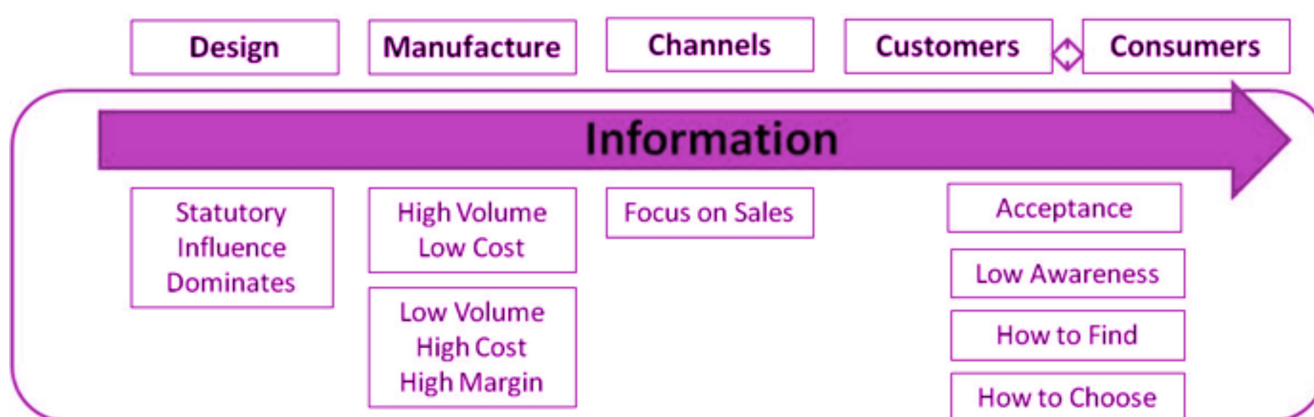


Figure 1. The characterization of the existing ALT market through a high level business model

This fairly simplistic model illustrates the key components of the industry, and the impediments to change and growth. First, and above all, it is dominated by the statutory sector, i.e. the NHS and Adult Social Services. This influences the approach to design, manufacture, distribution and relationships with end consumers. Design tends to be conservative, functional, durable and safe. Manufacturing tends to be either large scale (minimum variety to maintain economies of scale) or smaller scale, niche markets, which drives up costs. There is a focus on ‘selling’ into the relatively small number of NHS or local authority buyers or commissioners, as opposed to marketing to a wide variety of customers and end users.

And finally there are often insurmountable barriers to the initial stages of the ‘customer purchase journey’ which incorporate acceptance of ALT need and the requirement for essential information. This information includes ‘what is available?’, ‘where can I find it?’, and ‘how will I know which equipment is appropriate to my needs’¹.

The findings from the engagement with consumers were discussed through 12 interviews with Directors and Senior Managers of a cross section of firms and organizations in the Assisted Living Technologies (ALT) sector and together with information from the current market analysis developed into four proposed business models.

¹ In this market many carers, friends and relatives buy products and services on behalf of the cared for, who are the eventual consumers. For simplicity this report will use the term ‘consumers’ to incorporate both terms unless there are circumstances which require the more specific differentiation.

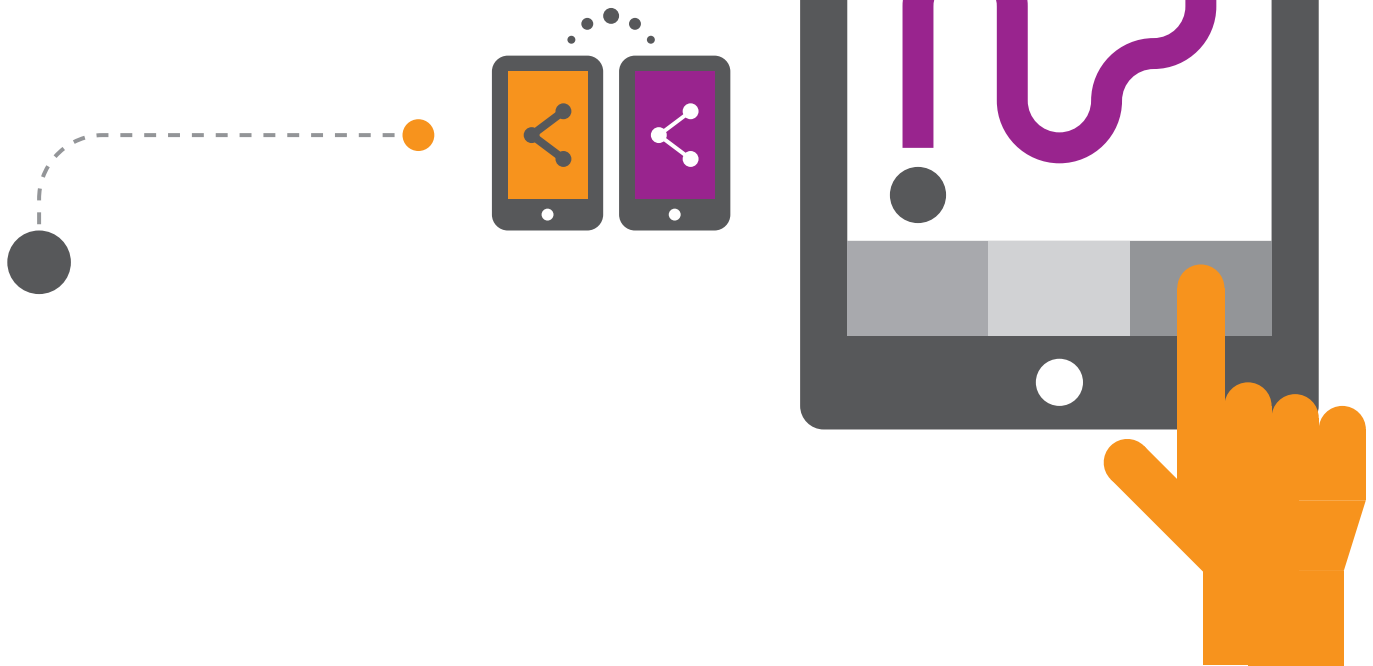
The summary of key issues that will influence the future, or proposed models is drawn from the detailed analysis of these interviews from an earlier report² (see Appendix D. below) and includes: new business opportunities; the need for service integrators; the need for normalisation; and the need for information providers.

The illustration in figure 2 represents the proposed high level, or meta proposed business model³. This suggests four more detailed business models (on the right of the diagram) which are appropriate at the organizational level rather than at the industry level:

- The Complementor Model
- The Diversifier Model
- The Broker Model
- The Insurance Model

There are four common revenue models which can operate to varying degrees within the business models and these are also illustrated:

- Purchase
- Subscription
- Freemium'
- Rental



²Urwin (2013)

³If we take as a working definition of "business model",

"The reason and method by which an organization creates, delivers and shares value between stakeholders in a sustainable manner" it can be seen that business model is actually a concept that operates at an organization level, whereas much of the terminology in the aims and objectives of the COMODAL research project documentation refers to ALT market changes at a meta-level, which would actually incorporate a variety of individual organizations' business models but will also be likely to include external factors and influences, or combinations of existing business models. This meta level is sometimes referred to as an economic model, an industry model or a value chain, or value system. However, in order to reduce confusion, for the purposes of this report references to business models will incorporate the higher level economic models.

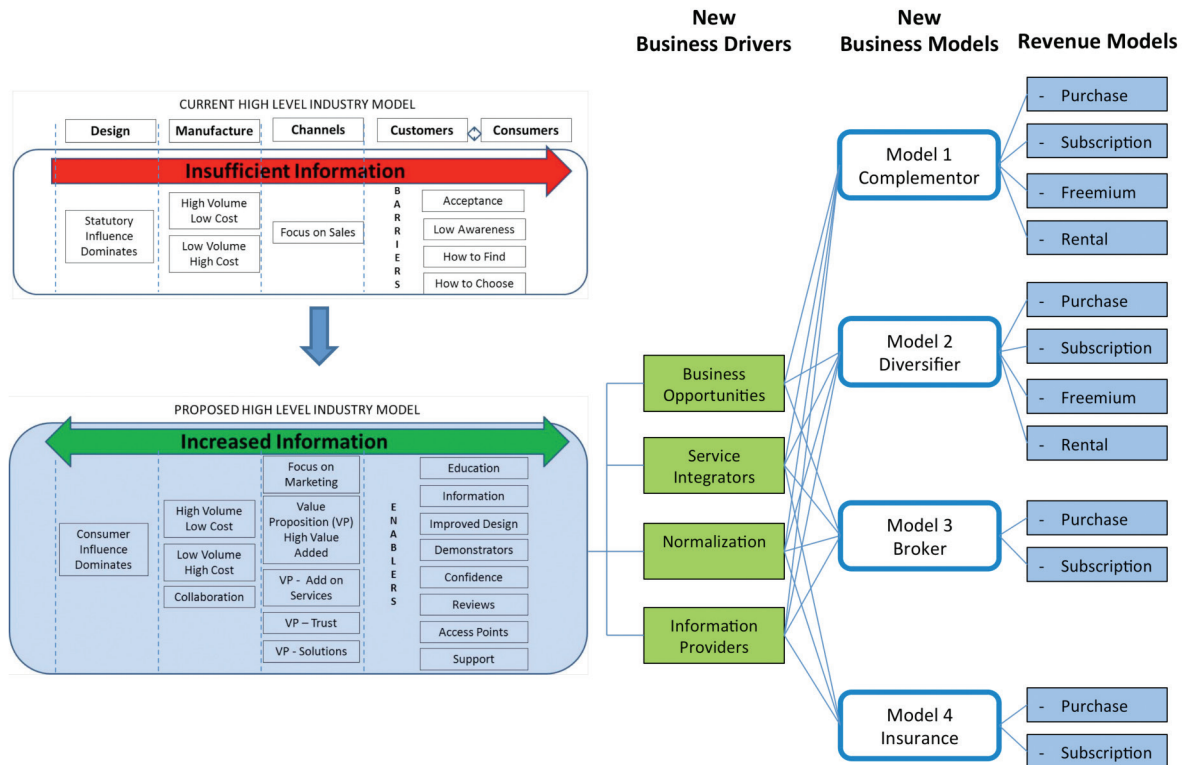


Figure 2. The proposed meta business model containing four proposed business and revenue models

The diagram in figure 2 above shows the progression from the current high level model, described in figure 1, moving towards the proposed model. It describes key organizational units operating within the industry, from product or service design, through manufacture, distribution channels and to the customers, and the final consumers (who, as we have seen, are often different from the purchasers of the products or services). The situation is complex because while some organizations specialize in one function e.g. design, or manufacture, others may combine multiple functions e.g. design and manufacturing, and use multiple distribution channels to satisfy their customers. In addition, the market is fragmented and customers may be targeted, or 'segmented' by their condition, by the product type or usage, by geographical location or by value.

All of these factors add to the complexity of trying to create business models that are grounded in the reality of what consumers want, but conditioned by what industry can, or will be prepared to provide. In the early phases the research identified that there was a significant disjoint between the consumer and industry view of ALT, and particularly eALT.

This is represented by the red arrow indicating,

- an insufficiency of information to customers and consumers to allow the market to develop

And the green arrow indicating,

- an attempt through this research project to encourage information to and from industry throughout the supply chain in terms of what customers want

The four business models described below were developed from the research⁴ and are an attempt to create new ways of thinking about the eALT sector, and ways in which it may develop.

As would be expected the four models are quite different, but models 1 and 2 explore business opportunities that involve collaboration between existing firms, and are opportunities to operate at scale with partners, in order to gain synergistic benefits and with the potential to grow the overall market. The third, the broker model, could most readily be adopted by existing local or regional providers, but could also offer the opportunity for a new national co-ordinating organization, possibly working with one of the national third sector organizations. The fourth, the insurance model could be a logical extension of existing insurance companies, whether or not they currently specialise in the health sector.

⁴ <http://www.coventry.ac.uk/research/research-directory/allied-health/health-design-technology-institute/>

THE FOUR BUSINESS MODELS

Model 1 - Complementor

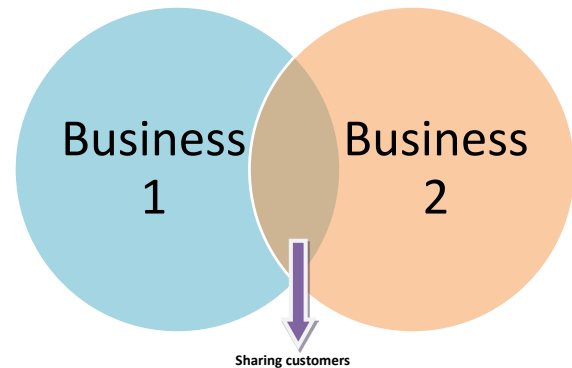


Figure 3. Business Model 1. The Complementor Model

A complementor to a product or service is any other product or service that makes it more attractive. Firms co-operate with each other, to varying degrees depending on the strength of relationship they wish to develop. This model can develop from two products or services, through to a 'service integrator' role where multiple services e.g. telecare and telehealth are offered through a single source.

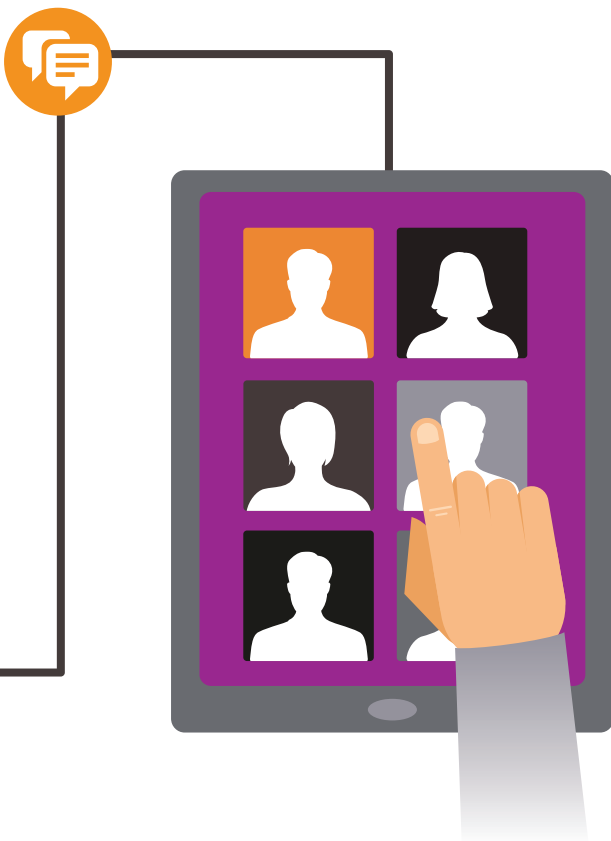
Examples of co-operation include automatic free or discounted access to another product or service that adds value in the eyes of the customer, thus enhancing the attraction of the original product, while introducing potential new sales to the secondary product.

Examples of Complementor firms include:

Lenovo laptop computers come preloaded with McAfee antivirus software (free for a limited trial period)

Also, Lloyds TSB bundled a number of free services with certain of their bank accounts, e.g. AXA Travel Insurance, AA Automobile Breakdown Cover

A slight variation on this theme is the collaboration between Nike 'Fuel' Band which links with Apple iPhones to send health monitor statistics to your (or other nominated parties) phone display.



Model 2 - Diversifier

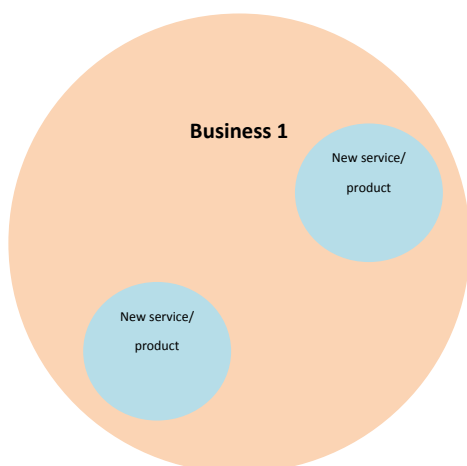


Figure 4. Business Model 2. The Diversifier Model

Firms have always had the opportunity to diversify, but this model suggests that customer feedback regarding a desire for “solutions”, rather than independent products or services supports a greater degree of “bundling” of products or services to provide a more holistic solution to their independent living needs. The suggestion is that firms can offer additional products, benefits or services, outside of their normal area of expertise, but these could be developed themselves, outsourced, or badged through some form of ‘own labelling’ agreement.

There are some similarities with the previous model, but the co-operation could be through a variety of arrangements, e.g. a strategic alliance, an outsourcing agreement, or a joint venture. Diversification can be either related to the original firm’s core competences, or unrelated. Although it must be borne in mind that the more unrelated the product or service is to the company’s perceived competence, the more difficult it is for the customer to trust the new offering.

Examples of Diversifier firms include the following:

British Gas have recently introduced the Safe and Secure service which in addition to their normal energy supply role, they can provide a security and remote environmental monitoring service that allows customers to check security and appliances while away from the home which also provides the opportunity to check on loved ones’ safety from afar.

Although now withdrawn, O2 introduced their “Help at Hand Service”, a telecare service including a special handset with a fall detector, GPS tracking, designated “safe zones” and a one-touch button that linked to a 24 hour support centre that could contact friends, carers, or the emergency services where necessary. This was a form of related diversification in that it extended from their core competence in telephone network and capabilities⁵. While at first consideration this may appear an unsuccessful example, it is important to consider the service offered by O2 satisfies many of the requirements voiced by consumers and participants in this research. There are therefore likely to be important lessons to be learned from this abortive venture.

The company commented

“The uptake of mobile telecare (Help at Hand) in the UK marketplace has taken longer and volumes have been lower than anticipated”⁶

However, they also stressed

“it will “continue to invest and focus resources in areas of e-health globally where there is more customer demand”, these being Brazil and Spain”⁷

Some have commented that while their £20 monthly fee for the service may have seemed good value, the £99 “not very stylish” handset seemed less so. It was also felt the target market of some 7 million carers was optimistic⁸. Another industry analyst suggested that for a strategic approach such as this it is important to have a medium term view, and to be prepared to build the market steadily, using a clear marketing communication strategy.

⁵This offering was withdrawn in July 2013, the company citing a refocusing of strategic direction as the reason.

⁶<http://www.o2.co.uk/health/helpathand/faqs>

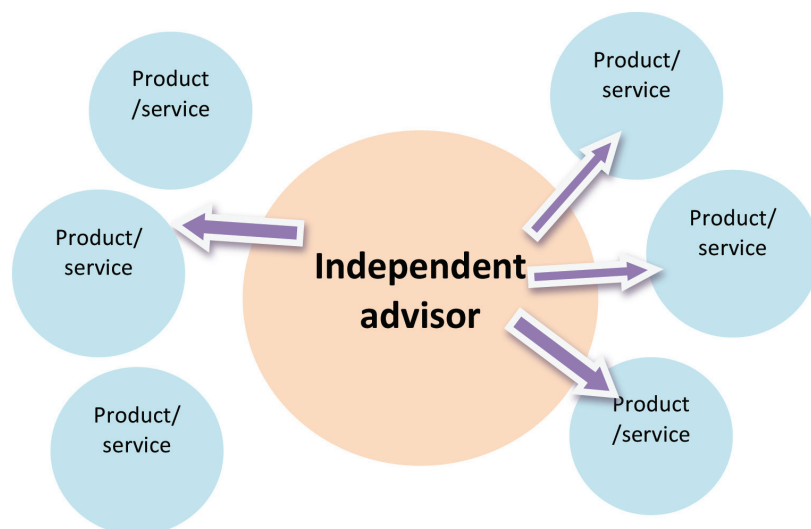
⁷<http://blogs.informatandm.com/15302/not-much-help-hand-for-o2s-mhealth-services/>

⁸<http://blogs.informatandm.com/15302/not-much-help-hand-for-o2s-mhealth-services/>

Model 3 - Broker (Independent Advisor)

There are two variations on this basic theme.

The first, the “Independent Financial Advisor” actually bundles the recommended solution elements chosen by the client, and sells the package, taking a commission or margin to pay for costs incurred, and expertise provided. The second model is more akin to a personal shopper example, where they signpost the client to the recommended or required products and services, which are paid for individually. The independent advisor can be paid by the outlet, or charge a separate amount for their service.



There are limited examples of this model existing in this form at present, however examples of existing organizations that illustrate this approach are shown below:

The Independent Healthcare Advisory Service website⁹ serves to illustrate how this approach could work. This is a trade body for the independent healthcare sector. Impartial among its members throughout England, Wales, Scotland and Northern Ireland, IHAS provides the mechanism for otherwise competitive members to share innovation, knowledge and expertise for the common good.

Independent Financial Advisor Model

An independent advisor can assess people's needs, suggest appropriate products and services to help, and package them in a bundle to sell to the customer. An optician offers another example of this type of service.

Personal Shopper Model

An independent advisor can assess people's needs, suggest appropriate products and technologies to help, and signpost the customer to where these products/services/technologies are available, in a similar way to a personal shopper.

Figure 5. Business Model 3. The Broker (Independent Advisor) Model

⁹<http://www.independenthealthcare.org.uk/>

Model 4 - Insurance

This model suggests the development of variations of the insurance based principle, where in effect for insurance against the risk of financial loss, or need, the many premium payers pay for the few claimants.

Alternatively, the life assurance model, where premiums are paid over a period of time in preparation for anticipated expenses. 'End of life' policies currently exist for example, to pay for funeral expenses. Annuities are also common as part of e.g. pension arrangements where a 'product' is purchased that will provide regular income for the remaining life of the recipient. Here, the uncertainty of an individual's lifespan is transferred from the individual to the insurer, which reduces its own uncertainty by pooling many clients. This principal could also be used for the provision of independent living support.

The cash plan is another variation whereby one pays a set monthly fee, and when expenses such as dental, optical and prescription costs are incurred, you can claim back benefits in the form of cash payments.

Examples of Insurance Model Firms include, BUPA¹⁰, Aviva¹¹ and AXA PPP Healthcare¹².

Or, an inverted form of this model has recently been introduced, where products and benefits are bundled together to make the offering more attractive.

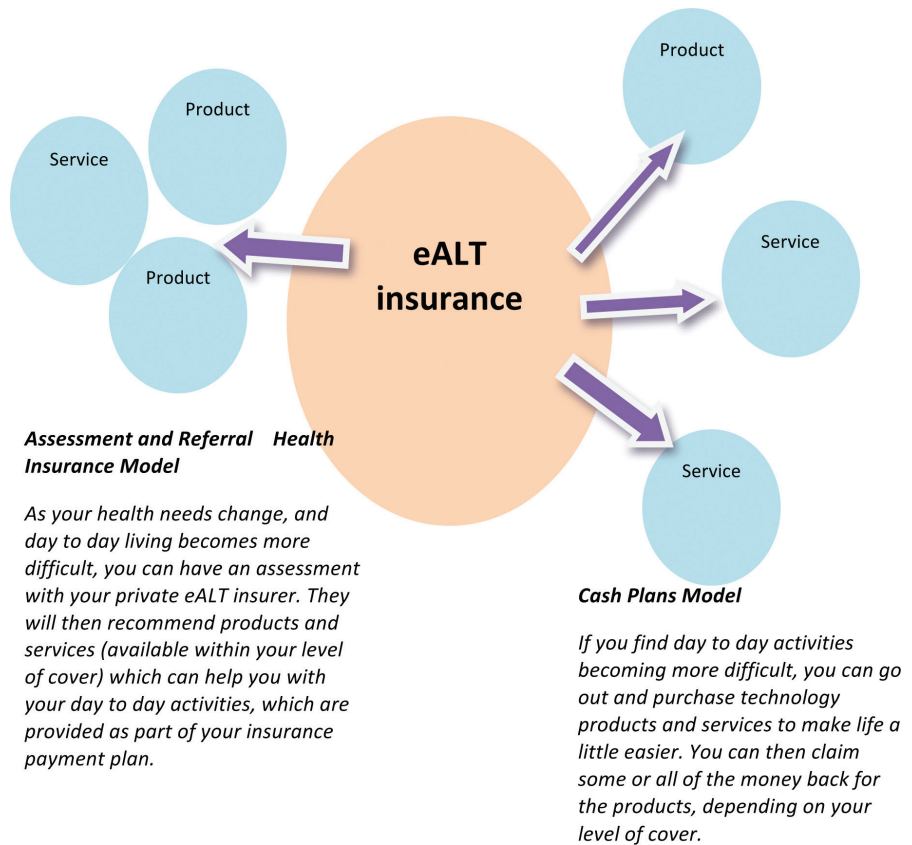


Figure 6. Business Model 4. EALT Insurance Model

However, unlike the previous variation of the insurance model, the bundle encourages healthy lifestyles and therefore reduces the risk of paying out, as the client remains healthier for longer.

Discounts are available on Gym membership, health monitoring devices, and health screening for example PruHealth¹³.

In practice, each of the four high level models featured above are not mutually exclusive and it is likely that more detailed business models at the specific organizational level will use features from more than one of these exemplars.

¹⁰<http://www.bupa.co.uk/>

¹¹<http://www.aviva.co.uk/private-health-insurance/>

¹²<https://www.axapphealthcare.co.uk/>

¹³<http://pruhealth.pruhealth.co.uk/individuals/home>

REVENUE MODELS

The revenue models are a subset of the larger business models but are a crucial element to consider. As described above, the revenue models are also not mutually exclusive, and can work interchangeably depending on the specific context and requirements of the business..

Purchase

The standard purchase revenue model needs no explanation as it is self apparent. It tends to apply most readily to simple products or services which can be purchased on-line, or in a multiple retail outlet. It requires no real product knowledge or advice, nor after sales service, other than perhaps a returns policy. This would include products such as automated lighting with perhaps movement or light sensors. This revenue model could be appropriate to each of the business models suggested, though in the case of model 4, the insurance business model, it would only be likely in purchasing an 'annuity' type policy, where a large 'lump sum' could be used to purchase for example, a long term care package.

Subscription

This revenue model is more attractive to business organizations as it allows them to anticipate revenue levels more easily, and guarantees a regular income. It is particularly suitable for support packages for the installation, maintenance and replacement of defective items. For example PC World and Currys currently offer their customers the "Knowhow" service to: install, train in the use of, support, or replace products that are defective. Customers can either pay a fixed price for individual services on demand, or pay a subscription for a 'careplan' (see illustration below). Again, depending on the actual product or service in question this revenue model would be appropriate to all of the four business models proposed.

Freemium

The "freemium" model is often used with web sites for example, where access and usage is free, but premium features, reports or services are only available to subscribers, or registered members. Another common example is the offer of 'free' mobile phones, but with a significant monthly charge for the access to the phone or data network.

A similar approach could be taken with a variety of home monitoring services (including telecare, telehealth and other variants) allowing the cost of the monitoring, or other equipment to be subsumed within the monthly or periodic subscription charge. Depending on the product or service, this revenue model is likely to be appropriate to business models one (complementor) and two (diversifier), but less so for model 3 (broker) and 4 (insurance).

Rental

The rental model used to be well established in for example, the television market. Radio Rentals, and Granada had a very strong brand and well established infrastructure to allow them to rent out relatively expensive televisions for a weekly rental premium. The televisions were maintained, mended or replaced as and when appropriate as part of the rental contract. The rental model is another variation on the subscription model, but may be seen as more acceptable for larger cost physical items (as is currently the case for mobility vehicles, and bariatric equipment particularly in the United States of America). While there are still examples of this revenue model it is more commonly presented as a bundled package of services and products in the form of a subscription. However, rental does offer more specific flexibility for certain categories of customer (as in the American examples previously mentioned). On this basis, the rental revenue model may be appropriate to model 1 (complementor) and model 2 (diversifier), but unlikely for model 3 (broker) and model 4 (insurance).

BUSINESS MODEL VALIDATION - INDUSTRY EXPERTS

In order to triangulate the research findings, and underpin their validity, further consultation was conducted. Two consumer co-creation workshops, and three rounds of consultation with industry experts were undertaken, to gain additional comments on the potential for further development of the business models put forward. This involved a total of 25 consumers, and a further 14 industry experts. Details of the methodology used for the workshops are in Appendix B.

In the following section each of the proposed models will be analysed based on the contributions from the industry experts,

but in the context of each of the key elemental parts of the business model, represented by the 'Business Model Canvas' (Osterwalder, Pigneur et al., 2010 as illustrated in Figure 7).

These are:

- Customer segment
- Customer channel
- Customer relationship
- Value proposition
- Revenue stream
- Key activities
- Key resources
- Key partners
- Cost structure



Figure 7. The key elements of the Business Model Canvas (Osterwalder, Pigneur et al., 2010)

1. Customer Segmentation is the grouping of customers that businesses wish to serve, by attributes such as value (e.g. margin), product type, customer age, level of dependence, geographic location, or statutory, medical or commercial characteristics. The organization structure tends to be set up in a manner consistent with serving the chosen segment well. Some customer segments may result in conflicting demands on businesses, for example, high value customers would typically expect better service, more knowledgeable staff, and perhaps to develop a relationship where the dealer becomes the default first 'port of call' for future business. This may conflict if the business is set up for high volume, low cost transactions with little provision for pre or post purchase service.

One of the factors to consider in relation to the new business models is the (sometimes deliberate) creation of opportunities to serve new customer segments, especially in the case of Model 1, Complementor, and Model 2 Diversifier.

2. Building appropriate relationships with customers undoubtedly adds value, but it usually also adds cost in terms of e.g. recruiting and developing knowledgeable staff, allowing customers easy access to the solutions through high street location, offering demonstrator opportunities or answers to queries or problems they may have.

It also important to realise that attempting to "up-sell", instead of developing a positive **Customer Relationship**, can generate a negative response from customers. And a clear message from the research earlier in the project when consumers were identifying barriers to the market development, was that consumers do not like being "sold to". They clearly want to be able to trust their supplier.

Consistently throughout this research consumers have indicated they are prepared to pay for better quality service if it addresses their needs. This means that pricing can be set at a level that will absorb these increased costs.

3. **Channels** are important throughout the customer relationship cycle and can be used to develop awareness, allow evaluation of the product or service, allow the purchase transaction, allow delivery of the value proposition, and finally allow delivery of post purchase customer support. One of the key findings from the consumer engagement of the earlier part of the research project indicated that awareness (or the lack of) was a crucial barrier to developing the market, in that it precluded any of the following stages of the purchase.

This is still one of the high risk areas in that, even with large companies such as O2 and British Gas making significant moves recently in the telecare, and activity monitoring market it is essential that they raise awareness of their offering in order to gain some momentum, both for themselves and for the wider market.

4. The focus on **Value Proposition** is most beneficial if the organization matches their Value Proposition with complementary customer segments. Therefore the research findings through consultation with consumers and customers are particularly important to this element of the Business Model Canvas.

The consistency of business model elements was found to be important, with firms giving a clear signal that they offered for example, a value added package to customer segments that appreciated, and were prepared to pay for, quality of service.

5. The definition of a demonstrable and attractive **Revenue Stream** is fundamental to any new business models that may be generated from this research. Each of the proposed business models can use a revenue model appropriate to their context e.g. the telecare/ telehealth service obviously fits well with a subscription model, but it may also suit the regional ALT specialist retailer for post purchase support.
6. **Key Activities** identifies the most important things that an organization must do in order to make its business model work. Once again, because of the linkage between elements of the business model this may not be as obvious as is first thought.
7. These are the **Key Resources** that are necessary to make the business model work. Similar to other elements of the business model key resources are often influenced by the business functions carried out, the value proposition and the customer relationship. Manufacturers for example often focus on financial assets, or physical assets such as plant and machinery; a design organization however, may focus on human assets, and the capability for innovation that they may offer the organization.
8. **Key Partnerships** offer the opportunity to create more flexible business models, and may allow structural change and the development of more appropriate business models for the consumer.

This is apparent from some aspects of all the business models suggested, and the ability of firms to develop outsourcing, partnerships, strategic alliances and joint ventures to allow the provision of bundled services and more holistic solutions is a strong finding of this research.

9. The **Cost Structure** identifies all of the key costs that are created through Revenue Stream generation, delivering the Value Proposition to Customer Segments, developing Customer Relationships and Channels, through Key Activities and utilising Key Resources and Key Partners. Cost structure is fundamental to every business model, but the inter-relationships between all of the business model elements suggests that it is not straightforward to choose, or change the structure.

Business functions such as design and manufacture typically have a significant proportion of fixed costs which reduces the flexibility to change should opportunities arise. Channel choice is more achievable, but is also influenced by product or service type, complexity, and the degree of customer support demanded.

Consequently, it may be for the larger organizations operating at scale to target the perhaps 80% of 'standard' or 'low maintenance' customers where a relative standardization of offering can keep costs at a realistic level, while smaller, specialist firms can target the higher cost, higher margin 'bespoke' end of the market.

Although customer relationship building may increase costs it may also offer opportunities to extend customer interaction and transactions, or some form of subscription or maintenance allowing recurring revenue opportunities. This is certainly true in the telecare, or home monitoring sectors, but also in the purchase, plus ongoing support sector too.

As part of the validation workshops the industry expert participants were asked to discuss:

1. Whether they felt that the model is feasible
2. Whether there are any risks
3. Whether it is scalable

And whether they had any other comments, concerns or attraction to the model in the context of addressing any or all of the eight summary issues identified during the consumer engagement process of the research.

A summary of responses to the four proposed business models follows. A more detailed analysis of contributions from the industry expert workshops is shown in Appendix F.

Model 1: Complementor - Summary

The overall response to business model 1 was positive. The **value proposition** business model element was strongly supported by the industry experts as having the most important contribution to the success of this model and elicited seventeen comments. There were many and varied comments made but the key points centred around the bundling of products and services. The point was made that bundling was a value adding service and often it was insufficient to merely signpost to another product or service that the consumer may find it difficult to locate or pursue. The value that bundling may add can help the consumer in terms of education or information and introduce them to products or services about which they were previously unaware. It can add value in terms of confidence for the consumer through buying a known brand, which may be the retailer themselves (people may buy from Marks & Spencer, or John Lewis for the 'peace of mind' and reassurance their brand brings), or one of the products. Lesser known brands or suppliers can gain the consumer trust through the vicarious association with the known brand. Bundling also adds value in terms of offering an opportunity to provide after sales service and the additional benefit of helping to establish a customer relationship which encourages the customer to return in the future for additional products and services, especially if these are available to cater for changing needs, depending on the condition of the consumer.

The complementary nature of the products and services can both increase revenue but also introduce the customer to different revenue models, for example a product may be a straightforward purchase transaction but may offer the opportunity for an alternative subscription or rental service, possibly including after sales service.

The business model element that was seen as the next most important was that of **key partners**, with ten comments. This is understandable as one of the core foundations of this particular business model incorporates the collaboration between two or more products or services. This results in the bundling effect which offers consumers more of a solution to their needs rather than trying to sell an isolated product or products. It also presents a flexible solution that allows the customer the choice to select the amount of products or services to meet their needs, even if these needs are changing over time. There was some concern over the relationship between the different partners, how they would establish relative responsibilities and accountability if the quality of one of the products or services fell below the expectations of either the consumer, or of the other business partner. This is understandable however it is also one of the fundamentals when strategic alliances between firms are enacted. Depending on the level of formality of the partnership this could be agreed through for example service level agreements, contractual arrangements, possible mergers or acquisitions, or the establishment of a new joint venture. This agreement would accommodate the concerns of some of the industry experts about potential brand damage if one of the partners provided less than expected quality in their product or service. Indeed the risk of brand damage is an incentive for both partners to define the processes clearly and manage them closely. Whatever the chosen solution, it is important to present a single point of contact or support for the consumer, and for the primary or dominant partner in the relationship to take responsibility for liaising with the customer. In some circumstances this contact point may be the retailer.

The next business model element was that of **customer relationship** with a total of nine comments from the industry experts. The customer relationship is an important element in any commercial organisation.

Although there were some concerns about why organisations may combine in this way, the principal of mutual benefit is core to this business model resulting in additional benefit to either the customer, one, or all of the participating companies. For each transaction the additional benefit may be shared in different ways, but overall the synergistic benefits should justify the arrangement to all parties. One of the concerns was in any danger of trying to 'upsell', that is increasing the revenue from typical transactions through adding additional products or services. While this principle is central to this business model, it needs to be conducted in a sensitive way. Customers have already strongly expressed a desire not to be 'sold' items in a high-pressure selling environment, and it is important that customers perceive this as providing them with additional information, additional value for money, or benefits in general. Using the known brand has the benefit of developing trust for associated brands, together with providing customers with information of products which they may have had no previous knowledge. This can help to develop the market, overcome one of the key barriers i.e. information, and potentially increase the level of prevention of events such as falls, or address issues at an early stage when benefit will be increased (e.g. early onset of dementia).

Key activities were mentioned six times, with discussion mainly centring on establishing a clear relationship between partners where responsibility was clearly established for each of the elements of the product or service. The other key issue revolved around the provision of after sales service, which would be seen as an integral part of the offering and this would support the consumer identified barriers of both 'confidence' and 'support'.

Revenue stream had only three comments, but this seemed to be based on the presumption that existing revenue streams were known and accepted. There was some concern about whether expressed demand by customers would translate into actual demand, and this strongly reinforced the need for information about the products and services in order not to stifle latent demand through ignorance of the existence or benefits of products and services.

The **customer segment** element is interesting even though there were only two comments relating to this. There is the potential through the complementor model to broaden customer segments through the provision of a wider choice of related products and services. Thus customers may have an initial interest around telecare, as a form of insurance against for example a fall, but if telehealth services are also offered they may start to investigate monitoring equipment from a perspective of reassurance, or a more positive perspective.

The **channel** was only mentioned twice, once in relation to the retailer being the centre of the trust relationship, in that if there were a problem with the product then it would be returned to the retailer to sort out. The other comment related to the weakness of merely signposting, which may cause frustration in the customer if they can't buy direct.

The only comment on cost for business model 1 reflected a concern about the potential cost of marketing in raising awareness of the less well-known brand, but this was countered in other parts of the discussion where it was felt that the dominant brand could carry, or share benefit with the less dominant brand.

The most significant contribution of this model to the consumer is the potential increase in information about complementary products or services, often the ability to try ('try before you buy') it out before committing to purchase, a degree of normalization through association with existing brands, and an increase in trust, also through the known brand.



Model 2: Diversifier - Summary

The overall response to model 2 Diversifier was positive, with particular emphasis on the front end customer focused business model elements. The **value proposition** was again the most discussed element with 12 issues raised. It was felt that the level of confidence in established consumer brands meant that, especially in terms of scalability, this was seen as having potential for the future development of the eALT market, particularly in raising awareness of solutions and adding value to the existing shopping experience, in a similar way to Model 1 Complementor. There was some concern at the risk of brand dilution especially if the diversified offering was not seen as related or complementary in nature to the primary brand. On a similar note it was felt that it was important to know your customers, and to know the amount of 'stretch' or flexibility that was available in an existing brand. Brand awareness was seen as crucial but in itself it may not be sufficient, with examples such as Boots, and O2 being proffered as illustrations. Overall it was felt that a balance needed to be maintained between the opportunity of diversification, and the risk of over diversification and the consequent dilution of brand.

For model number 2 the second most commented on business model element was that of **customer segment** with nine comments. Much of the discussion related to the importance of a clear understanding of the customer base, the mechanics of supporting different customer segments in an appropriate manner, and most importantly in order to operate at scale it is much easier to diversify, especially into new customer segments, when you already have a large customer base or distribution network.

The next business model category is that of **customer relationships** with six comments from the industry experts concerning model 2 Diversifier. Once again the emphasis in developing positive customer relationships was on the sensitivity of dealing with customers, particularly in relation to the consumer identified barriers of trust, stigma, and confidence. Again the suggestion of a strong brand or an independent trusted advisor were raised to address this issue. The business model element of **channel** also had six responses. Discussions on the channel had several conflicting elements.

There was a strong feeling that if the channel was to be the retail high street then this would only really work if the product or service was not complex and very discreet. Suggestions such as pharmacies, or Boots retail outlets had advantages, but experiments in recent years had suggested that the profit margin that was necessary to support a high street presence was difficult to achieve. Another point that was emphasised was that an independent information provider would help overcome initial ignorance of the existence or availability of products and services, and that the typical expectation of consumers would be that this information provider would be part of the existing health infrastructure including GPs and other health practitioners. One of the significant difficulties in this expectation is that it was commonly agreed that GPs and health practitioners are not necessarily sufficiently knowledgeable to be able to fulfil this role, neither do they have the resources to be able to provide such additional support.

Key activities in the business model had five responses, and mainly focused on who would provide the after sales support, and how businesses would gear up to deal with new issues such as appropriate packaging.

The **key resources** element of the business model had only four comments but there was considerable agreement, firstly that it was important to have appropriately qualified resources and staff that could support the diversified area. After some discussion it was accepted that either the required training for staff needed to be put in place, or if the service were outsourced to an existing organisation that had the requisite skills that would be sufficient. Secondly it would normally require the resources of a large national company to be able to adopt this model to scale. It would be difficult to grow organically within a reasonable timescale.

The **cost structure** element of the business model also had four comments and these focused largely on the difficulty of SMEs in being able to cope with the increased costs of infrastructure, branding and for example, packaging. The comment was also made that if products or services were introduced at scale this would be likely to reduce the amount of choice in order that the necessary economies of scale could be achieved.

The **key partners** element of the business model also had four comments, which were similar to those for the same element for model 1, that is that there had to be a clear allocation and agreement of roles, and quality of product and service between different or new parts of the organisation.

There were no comments with regard to **revenue streams**. It appears that there were no areas of novelty or contention, and that it was felt that revenue streams would not differ because of diversification.

The most significant contribution of this model to the consumer is once again the potential increase in information about complementary products or services, and the potential for 'bundling' a solution which suits the customer need. The degree of normalization is likely to increase through the association with existing brands as well as increased confidence in the products or services, and the ongoing support.

Model 3: Broker (Independent Advisor) - Summary

Model 3 had the most positive response from both the consumer workshops and the industry experts workshops. For the independent adviser model the **value proposition** was seen as the most important business model element with 15 responses. There are two versions suggested for this model, the "travel agent model" and the "personal shopper model". The former model provides advice, but also offers a complete solution with a single price, dealing with each of the subsidiary suppliers on behalf of the client. This was described during discussions as a service aggregator. At the other end of the spectrum the personal shopper model will advise but merely signpost the client to where the purchases can be obtained. There are obviously a number of variations between these two suggestions. In general the travel agent model seems to have significantly more support in that it was much clearer for the customer to obtain after sales support, and that a single point of contact if there were any problems. There was some concern as to the transparency of the charge that the "travel agent" would make, but this was not a major issue, as it seems to operate currently without a problem with actual travel agents. It was felt that this model had a number of positive features. It improved access to information about the existence,

appropriateness and relative quality of a variety of products and services which would satisfy customer needs. It was also felt that it would fit well with the introduction of personal budgets. In addition it offered a useful opportunity for building customer relationships through follow-up calls, checking the equipment was useful, worked satisfactorily, and offering the opportunity to establish if there were any change in the customer need. It was suggested that an Amazon like support tool could be provided to give easy access to assisted living technologies on offer; it could also offer product review facility and suggestions for alternative or complementary products. It was also suggested that the NHS would be a perfect brand to take this model forward, although in practice, this is unlikely to happen.

The next business model element, **customer relationship**, had 10 responses though there was significant overlap or agreement of the issues discussed. There was some discussion about the level of independence in terms of advice given, but in practice it appears that most customers are prepared to accept less than complete independence so long as any bias, commission, or sponsorship is completely transparent. As mentioned in the previous section this business model lends itself well to the development of positive customer relationships. So long as follow-up customer enquiries are sensitively conducted and no sense of pressure sales techniques are perceived by the customer this seems a sensible way of developing a better level of service and customer support.

Discussions around the **channel** business model element had 10 responses and focused mainly around the possibility of the third sector providing independent advisers, possibly gaining a fee, or commission for their advice, but being allowed to either suggest trusted suppliers, or perhaps to "badge" products or services from other specialist suppliers. It was commented that it was interesting that existing mobility shops were not perceived as offering this service, and that perhaps it was the stigma issue that prevented this from progressing further.

The **revenue stream** business model element had only four responses and most revolved around how this model would be paid for. It was suggested that a retail model would have limitations and would be difficult in terms of scalability.

The **key partners** business model element had only three responses, and these have largely been covered in other areas. It was suggested that this was perhaps a dependent, rather than an independent model, raising again the issue of how independent adviser can realistically be expected to be. Also suggesting, once again, the possibility of the third sector providing the trusted source of information.

The **cost structure** had only two slightly related discussion points, but neither were significant

Key activities also had only two discussion points, and again neither brought out any new issues. **Key resources** had only one point raised, however it is an important one. Finding appropriately qualified and experienced staff to take on the role of independent adviser could be quite challenging. It was suggested perhaps a combination of a web based support tool and an independent adviser may work more efficiently and as a result more effectively.

There were no comments relating to **customer segments**. The most significant contribution of this model to the consumer is the increased access to information and advice about appropriate products or services; additionally an increase in trust, through the advice of the independent advisor and increased knowledge of where improved design is available.

Model 4: Insurance - Summary

This model overall was less well supported by the industry experts, and the consumers. The **value proposition** element elicited 16 responses, with strong opinions both for and against its feasibility as a way of developing the eALT market. Comments such as “this idea is barking mad” were balanced by comments such as “could be a good add-on for existing company e.g. BUPA”, or “more of an American model -- we are going to have to pay for and look after ourselves”. Much of the consternation was based around the terminology. There was much stronger support for an assurance model (planning to fund a likely event), or a cash plan facility (existing regular monthly payments allow optical, dental or prescription costs to be paid-for when they arise) as opposed to insuring against age-related illnesses or long-term conditions.

The latter would be difficult to set premiums for, partly because they would need to start very early, at a time when younger clients are less likely to be interested, or they would need to have significant exclusion clauses, or increases in premiums if claims were made. Further caution was urged in that this model may work in the short term but as the ageing population increases would this be sustainable. In general it was felt that the only way that the ‘insurance’ interpretation of this model would work would be if it was driven by the government, in a similar way to pensions.

Response to the variations on the cash plan or assurance model seemed much more positive. This could be used to plan ahead (in the same way as a funeral plan, so long as it is marketed appropriately), and it could be used to disseminate information about the range of products available in eALT, with revenue streams from either the consumers or perhaps younger children or relatives “topping up” payments to allow continued independent living. Telecare would be suitable in this context, and insurance companies may be particularly interested in telehealth applications. One interesting suggestion was that possible contributions could come from GP practices from a perspective of reducing demand on their scarce resources. Another comment suggested that it would be a good model but the prerequisite was a raising of awareness of the facility, and the acceptance of the need for it, again, one of the perennial barriers to the development of this market.

Revenue streams were seen as the next most important business model element with 11 responses from the industry experts. There were comments suggesting that this may not be a business model, but that it could be an eALT funding model if the government were to adopt a form of national insurance that incorporated independent living care. There was a concern however as to whether the generation who had grown up with the NHS as a ‘provider’ would be prepared to pay. Again there would be a need for marketing communication to first establish the existence of this as a viable product and then persuade consumers of its worth. Although it was suggested that GP consortia could contribute to the funding as a means of protecting their scarce resources and keeping people living independently for longer. Trust was again raised as a significant issue, especially in the context of a variety of financial institutions mis-selling episodes in recent years.

This comment was countered by the large national brand argument, where organisations such as BUPA still have a good reputation and a trusted brand. This argument was taken further to address the lack of information barrier, in that such large organisations are used to the need for sound marketing and are capable and experienced in promoting their products. The **customer relationship** element of the business model generated 10 comments. Again there was some discussion of terminology and the product or service being offered. So the relationship is likely to be very different for insurance as opposed to assurance products. The assurance product could more readily incorporate advice and guidance on the types of products that might be available and appropriate. This guidance could be seen both as a form of promotion of the benefits of the product, as well as assistance when the actual need for the eALT manifests itself.

The **customer segment** element of the business model encouraged eight responses. A good example that was suggested is the retirement village model where adaptive and progressive levels of care are available. This can be used as part of the promotion of the product, offering reassurance to the customer that the service can cater for every changing need. It may also provide help or assistance in the use of such technologies as part of the package. So once established, this model could provide a wide range of products and services for the customer.

The **channel** element of the business model only elicited three responses reiterating the benefits of existing large organisations who have the capability to generate appropriate marketing communications to create awareness and demand. It was also suggested that the government could pump prime an advisory service although it is unclear how this may work in practice, and with current government spending constraints this is unlikely to occur.

Key partners were not seen as particularly significant for this business model, with perhaps the exception of the designers, manufacturers and suppliers of the products and services who would need to work closely with the insurance companies and their customers.

The **cost structure** element of this business model again only elicited two responses, neither of which saw this as a positive option.

There are no comments for the business model elements **key activities** or **key resources**.

The most significant contribution of this model to the consumer is the potential increase in information and confidence about long term solutions to independent living, and care. Additionally a degree of normalization should occur through association with existing brands,

INDUSTRY WORKSHOP ANALYSIS SUMMARY

A lively discussion ensued in all of the industry workshops with industry experts commenting on each of the proposed business models in turn. At the end of discussion of each model the participants were asked to assess whether each of the models addressed the concerns expressed by consumers throughout the research, i.e.:

Education

- Authors such as Clark & McGee-Lennon (2011) argue that in the UK the biggest barrier to uptake is due to a lack of awareness raising, education and training amongst users, carers and providers of services and this must be addressed to reduce the negative impact of miscomprehension and mis-prescription of AT. In addition education is necessary because consumers often do not perceive a need for assistive living technologies, until the need is upon them; and it is necessary to counter the often cited issue of stigma, and the negative societal attitudes to ageing, dependence or frailty. Education in this sense can be addressed through the normalization of the ageing context and positive role models.

Information

- Information is needed, once the trigger event has created the realization of the need. Consumers need to be able to access information on what products and services are available, where to find them, and who can advise on their appropriateness for their condition.

Improved design

- Strong feedback from consumers is consistently presented about the need for improved design in products and services, away from the functional statutory norm, towards a fashionable, elegant or desirable design. More choice is also demanded.

Demonstrators

- Partly linked to the need for more information, consumers want the ability to try out, pick up, feel, or test out products and services before making a purchase decision.

Confidence

- Consumers lack confidence in products and services they do not know or recognize. Governmental or professional standards are needed, and/ or a strong and trusted brand can act as a proxy for this trust.

Reviews

- The ability to read or hear peer reviews of products and services would be welcomed.

Access Points

- High Street or readily accessible retail or information points would be very much welcomed, and this could work in tandem with better provision of information.

Support

- There is significant concern with regard to the purchase and use of a variety of technologies. After sales support is seen as a key requirement to overcome barriers to adoption of eALT products and services. Initial set-up, training, maintenance or repair, or replacement are all lacking at present, and need to be available.



A summary of the analysis of their responses is illustrated in Figure 8 below. Participants were asked for each of the models, whether they felt that it addressed the eight areas that were required in order to overcome the barriers to market development. The columns indicate the number of respondents that indicated positively that the model addressed the specified issue, Education, Information, etc.

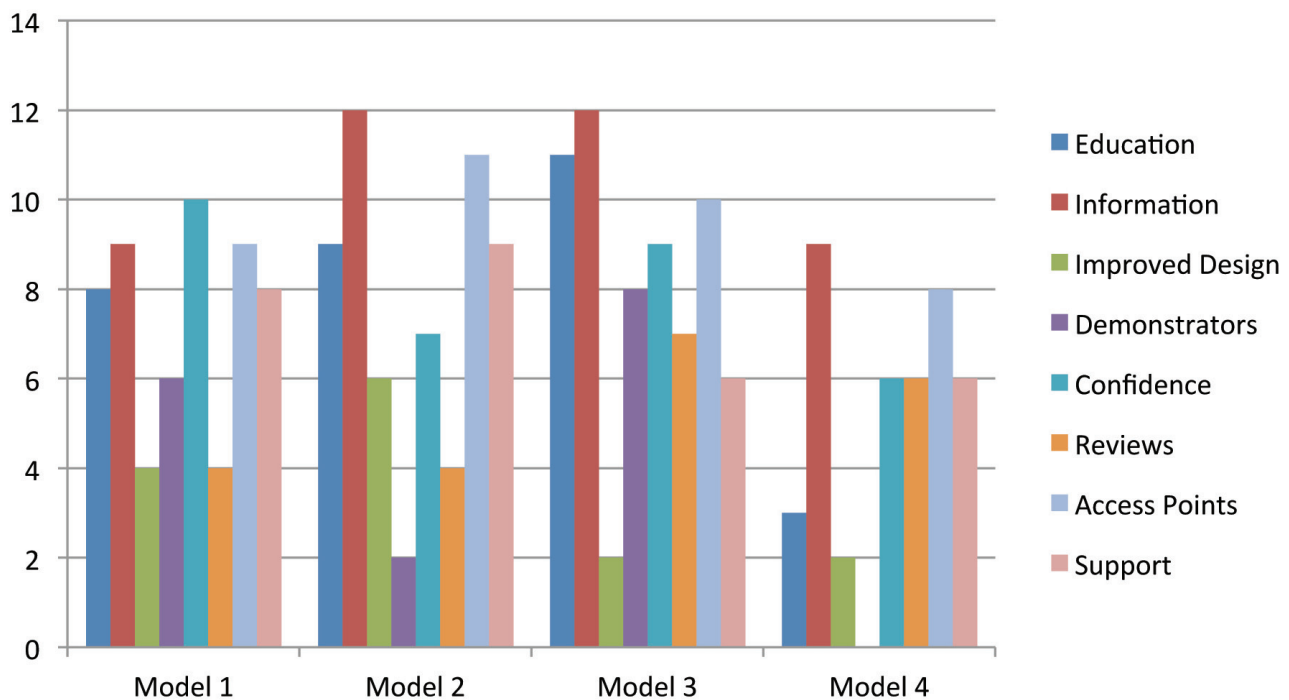


Figure 8. Cross reference of business models to consumer issues addressed

In the industry experts' opinion, all of the models seemed to show support for the increased provision of education concerning eALT products and services to consumers, with the exception of model 4, the Insurance Model.

The strongest support across all models was the anticipated improved provision of information of eALT products and services. It wasn't always clear from the experts comments how the level and quality of information would be so much improved, other than that large existing brands had the experience in marketing and other communication. As the existing level of information across the sector is currently a fundamental barrier, this was seen as a really positive outcome. It was felt that improved design of products and services were not addressed well, with the possible exception of Model 2, the Diversifier.

To some extent this is understandable as none of the models specifically includes a method or channel for gaining feedback from consumers. Inclusive design, and co-creation design methods are becoming more accepted in a number of sectors but this cannot be relied upon to naturally transfer into this sector. It may be that this is one area that needs some additional stimulus outside the specific business models proposed.

The availability of demonstration products or services was anticipated to improve, or was seen as an important element to be included with Model 1, Complementors, and especially Model 3, Independent Advisor/Broker.

All the four models seemed to support increased confidence in the products and services, particularly Model 1, Complementor, and Model 3, Broker (Independent Advisor). This was largely due to the expectation that in the Complementor Model at least one of the products would have an existing strong brand.

This would help in the normalization of the products and help to reduce stigma, and would overcome one of the significant existing problems in the sector, i.e. the lack of any real brand awareness. Even for Tunstall for example, probably the largest name in the telecare industry, very few new consumers would recognise the brand. It was felt that trust could be gained vicariously through the known brand partner, and through brand extension may be expected to transfer some of the trust in the existing brand (Aaker & Keller, 1990). The Independent Advisor Model was expected to address the issue of confidence through some form of accreditation, or certification, perhaps by a professional body, in a similar way to the optician business model which currently exists in the UK. Registered opticians have to meet standards of practice and training, commit to ongoing education and hold professional liability insurance. These standards are monitored and managed by the appropriate regulating bodies such as the General Optical Council.

There was some support to indicate that reviews would be made available as a service by all of the models, with nearly 50% of the industry experts adopting this view for Model 3, Broker (Independent Advisor), and Model 4, Insurance. The view that access points would be supported was high across all four business models.

After sales product and service support was fairly high across all four models, but with more support for model 1 and 2 (8 and 9 responses) than models 3 and 4 (6 responses each).

There was much discussion with regard to the feasibility of each of the proposed new business models, together with risks and issues that each potentially raised, especially in relation to their scalability. In order to give an overview of the emphasis of the discussions, a summary analysis of the industry experts' references relating to each business model element is illustrated in Figure 9 below. Each column indicates the importance of the element through the number of comments made, both in terms of the positive impact, potential for scalability and also the potential for risk.

■ Model 1 - Complementor ■ Model 2 - Diversifier ■ Model 3 - Independent Advisor ■ Model 4 - Insurance

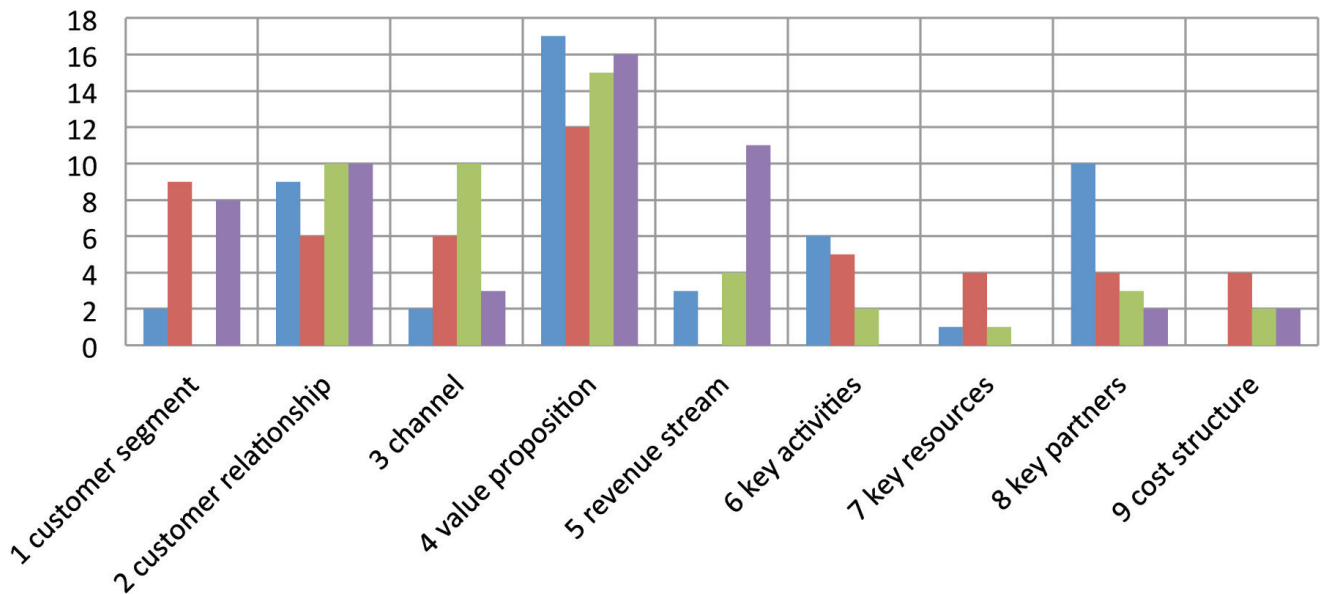


Figure 9. Industry Experts' Comments by Business Model Element

By far the issue that elicited the most comment across all the models was the value proposition. This is understandable in many ways as it is the reason that customers, or a particular customer segment will patronise one particular firm over another. It is the combination of products and services that a company delivers to a customer group that they will perceive as valuable. And in the value proposition is the essence of the success of the new business models.

Here the emphasis must be on good design, and consumer choice, also on delivering the required trust, through either recognisable quality standards (for goods or services), or through a brand that can stand in proxy and deliver trust in a different way. Additional levels of confidence can be developed through demonstrators, and opportunities to assess reviews from previous or existing users. Add in a convincing post purchase support offering and five of the eight customer identified barriers to the development of the eALT market have been addressed.

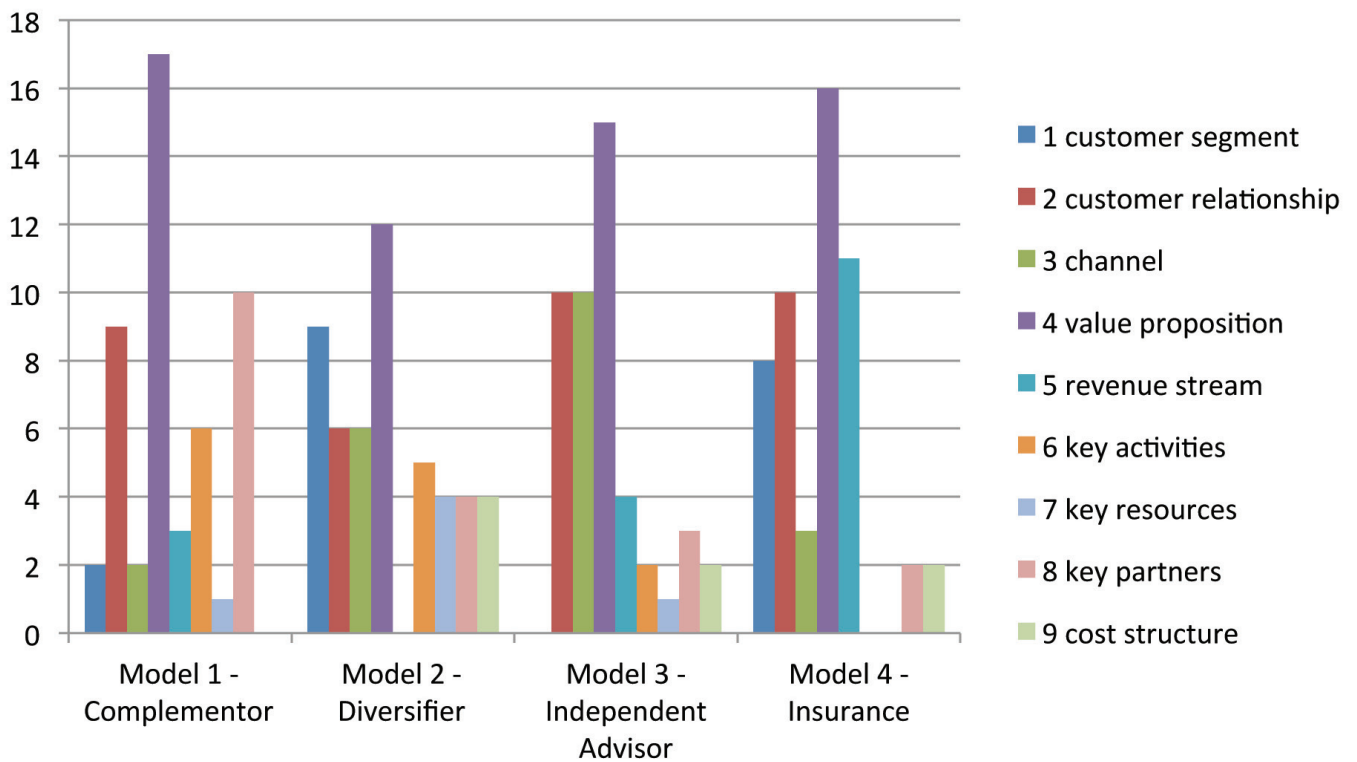


Figure 10. Industry Experts' Comments by Proposed New Business Model

Showing the same information, but offering a different perspective is shown by reversing the axes and showing the analysis by proposed new business model, and this is illustrated in Figure 10. above.

BUSINESS MODEL VALIDATION - CONSUMER WORKSHOPS

It was not anticipated that the consumer workshops would add any new issues to those already identified in the previous research. The focus was on gaining a reaction to the proposed new business models, and to see if the participants felt they were feasible, and whether they were likely to address the previously identified barriers to the development of new consumer based eALT markets, or whether they may support enablers of such markets.

All four of the models were explored with each of the different groups.

The consumers were asked for each of the models:

1. Whether they think the model is:
 - Desirable/undesirable
 - Useful/not useful
 - Helpful/unhelpful
 - Valuable/not valuable
 - Attractive/unattractive
 - Important/unimportant
 - Meaningful/meaningless
2. Whether they think this is a good way of making technology products and services available to consumers

The process was interesting and involved much discussion, and sometimes vigorous debate. As would be expected there

were no unanimously held views. Workshops were scheduled to last three hours, and because of the amount and depth of material to cover the participants were divided into two groups of about six or seven. Each of the four models was described to the whole workshop, then each group discussed two of the models in detail. Participants were encouraged to elect 'scribes' to capture comments, but all were issued with a short questionnaire and materials to make their own notes and comments. One facilitator per group helped to manage and focus discussion and to take notes. At the end of the workshop a plenary review was given describing discussions by the groups and allowing the rest of the workshop to comment or raise queries. A summary of the consumer views on the worth of each model is shown in Figure 11. This shows the number of consumers who assessed in a positive way whether each model was 'desirable', 'useful', 'helpful' etc.

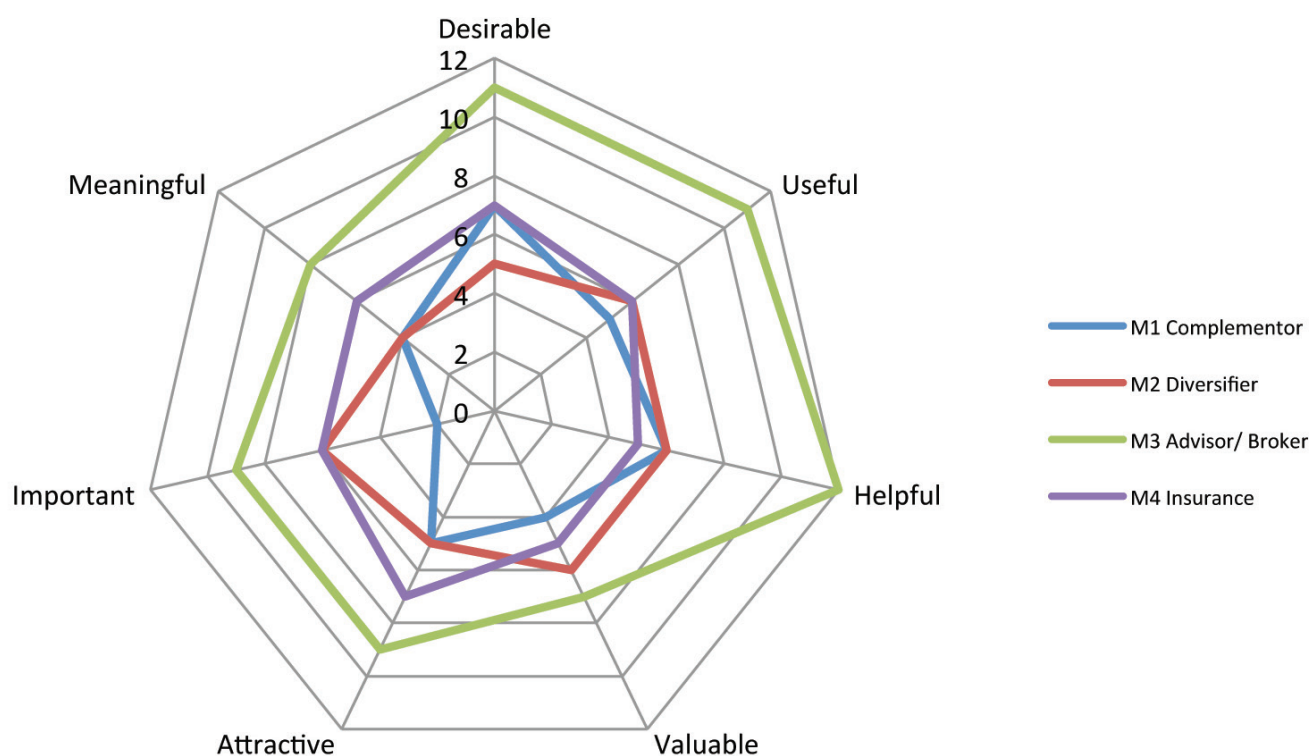


Figure 11 - Summary of consumer comment on the worth of each model

Written comments from the consumer workshops are detailed in Appendix C.

The summary shows a clear preference among consumers for model 3, the independent advisor, or broker model. There is almost complete agreement that the model would be desirable, useful and valuable.

Positive comments concerning this model included:

"Control of service by the customer or consumer. Transparency of independent advice, transparency of cost of the service. Potential for saving money, if advice given is good."

"There needs good oversight to ensure that the independent adviser is a. really independent and b. expert,, well-informed, up-to-date. If this applied I would choose this model"

"Should be stratified, beginning with an IT-based triage model to identify needs (from an early age), and point to products/services from which I would benefit"

Although there is some variability, all three of the other business models, Model 1 Complementor, Model 2 Diversifier, and Model 4 Insurance, were still seen in a positive light, but significantly less so than Model 3 Broker (Independent Advisor).

SUMMARY OF THE BUSINESS MODEL VALIDATION

Two key barriers to emerge from the consumer engagement phase of this research were firstly a lack of customer recognition of the need for Assisted Living Technologies, and secondly a lack of awareness. Once the trigger event had occurred that caused the realization of the need, there was a strong and widespread feeling of a vacuum of necessary information, particularly:

- of the existence of products and services that can help
- of where to find these products and services
- of how to gain advice on the appropriateness of different products and services

This strongly suggests a need for action to address these barriers both as an integral part of the new business models, but also incorporating external factors that may assist with increased provision of education and information.

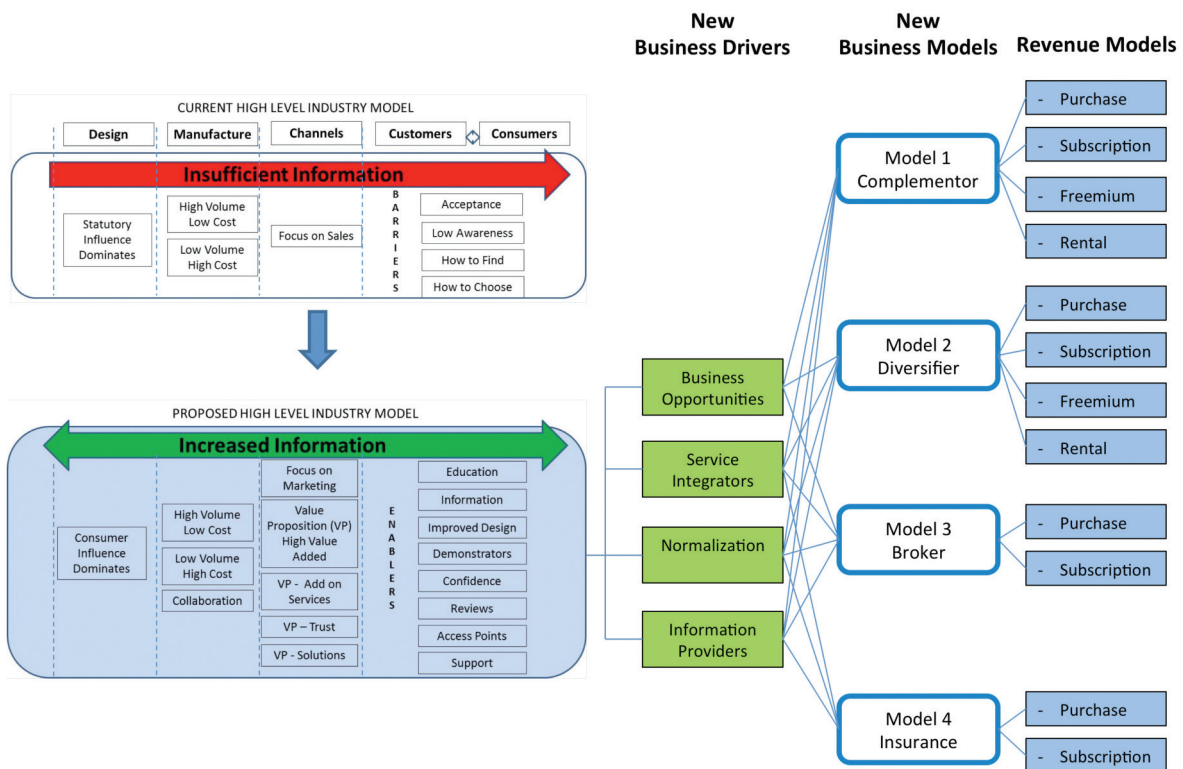


Figure 2. The proposed meta business model containing four proposed business and revenue models

Consistently throughout the research consumer awareness has been raised as a serious barrier to this market development. Figure 2. above shows the information element that needs to be addressed:

1. There is an ongoing need for a regular input, or pulse to raise awareness and to educate the general public of the opportunities available to them. This could include government sponsored information campaigns similar to e.g. anti-smoking, seat belts, hearing aid induction loops or stroke awareness campaigns, or industry sponsored events or campaigns.

2. What could be referred to as information anchors. These currently exist, or at least are perceived to exist by the general populace. There is considerable evidence that people's expectation is that GPs and trusted advisors, and usually health or social care practitioners should be able to advise on, and signpost to independent living and Assisted Living Technologies.
3. Trusted Information Sources. These should be easily accessible for those that choose to look for them (suggesting perhaps a central information point that potential customers and users are directed to, from a variety of starting points, which can then redirect or signpost out to the large number of potential sources of information to help solve the consumer problem.
4. Internally within the market, advertising can be seen as a part of the solution to the whole inadequacy of information issue, however, it is unlikely to be sufficient to generate a step change in demand in its own right.

OVERCOMING THE CONSUMER IDENTIFIED BARRIERS TO THE NEW eALT MARKETS

Several themes themes recurred with considerable emphasis in every consumer engagement:

1. There is a strong need for **Education**. Consumers do not see ageing and long term conditions as relevant to them, and tend not to plan ahead. Typically it needs a trigger event (such as a medical event or a fall) to raise awareness to a level where action to seek assisted living products or services is prompted.
2. There is a bewildering lack of useful **Information** on what products and services are available; where to buy them; how they may be of help; and how to make appropriate choices.

These two factors are critical in the consumer's purchase 'journey' and without them all of the remaining steps are likely to falter or progress no further. An excellent example of this is illustrated in recent research commissioned by Carers UK (September 2013).

The survey asked respondents about their attitude to telecare. Telecare monitoring systems have been used for decades in the UK, and alerts and monitors linked to support services are a familiar form of technologies used in the health and care arena.

"We asked the public whether they would use telecare – without giving a definition of what it was."

Only 12% of all respondents said they would use telecare, and this figure dropped to only 7% for those over-65. Crucially, 80% admitted they weren't sure what telecare was. The researchers then defined telecare to respondents in plain English, and a remarkable 79% of respondents said they would use it (so long as it was affordable).

Therefore, before anything else, it is important to make people realise this is an issue that is important to them, and that they need to plan for the future. It is only when it is set in this context, that addressing the next stage of provision of information is likely to then have an impact.

In many respects the solution to the issue of effectively informing people is one set within the context of traditional marketing communications, i.e. there is a need to first inform, and then persuade consumers of the existence, and then of the appropriate benefits of eALT which apply to them.

Action on education and information that can address both of the above issues could come from 3 sources:

- a. **Need for Government education, information and advertising campaigns.** In some respects the objective is the long term change of public opinion, and the perception of aging well, and living independently for longer, which will eventually result in behavioural change at a societal level. In the past, successful campaigns to change behaviour have included society's attitude to 'drink driving', the wearing of seat belts in cars, and smoking in public places. This is not an insignificant undertaking. For example, the first major government campaign targeting drink driving took place in 1967 at the time that it became an offence to drive with over 80mg of alcohol per 100ml of blood and breath testing was introduced.

Regular national drink drive campaigns have run since the late 1970s and over this time the number of people killed in drink drive accidents has reduced by three-quarters as a result of a combination of primarily education and enforcement measures¹⁴. The campaign would need to be long term, including TV, radio, poster and social media advertisements, supported by some form of statutory insurance provision, combined with the establishment of “one stop shop” Information Points or independent Advice Centres.

- b. Information Points or Advice Centres could for example be centred in new style public libraries. As an example the new £189 million Birmingham public library describes itself as, “As a centre of excellence for literacy, research, study, skills development, entrepreneurship, creative expression, **health information and much more, the Library of Birmingham can change people’s lives**”¹⁵. Public libraries have always had a core purpose as a source of information to benefit the local community. Perhaps this needs a slight refocusing. They could host the establishment, and signposting to centres of information, where impartial, or transparent advice is available.

These could vary in sophistication (and resources /cost) from a traditional ‘library’ reference section where people traditionally go to discover information about local events, societies, education etc. through to more specialised advice, with more qualified or experienced medical specialists being available on a bookable basis at certain times (similar to independent living centres in Australia). At the former level it is merely a repository of information that people know where to find it, and they are then signposted to more specialist sources. Changes in recent years to the design and function of libraries lend themselves more readily to this “information transfer” perspective. This also has the advantage that it satisfies the “high street” presence demand from consumers, and also provides a normalization influence, reducing potential perceptions of stigma.

- c. Once the education and public information programme is underway, the industry is much more likely to make complementary information available to potential customers as a normal part of their marketing communications strategy.

The central principle of a ‘bow tie’ communication model will allow people from a wide variety of backgrounds, needs and contexts a single contact point to gain further information, which will then in turn open out to a wide variety of different products, services and solutions suppliers.



These external education and information factors are important as foundations upon which the integral business model factors can build. The industry experts felt that models 1, 2 and 3 had a good chance of addressing these barriers, particularly models 2 and 3, but the chances for success are significantly increased if they can build on sound external foundations.

¹⁴ <http://assets.dft.gov.uk/publications/drink-driving/campaign-case-study.pdf>

¹⁵ <http://www.libraryofbirmingham.com/article/About>

Improved Design, and choice

This issue had one of the weakest responses in terms of any of the models being able to address the need for improved design, and choice. It may be that this is one area that needs some additional stimulus outside the specific business models proposed. This stimulus may come from success stories of products and services that have good design as a core element of their success, and which good practice encourage emulation amongst competitors, or new entrants to the market. Often this design feature is highlighted as a significant element of companies' advertising campaigns.

However, similar methods could be used to raise the profile of good design through trade associations and industry or professional bodies, including 'signposting' or endorsement from other users in forums such as Facebook, or Twitter.

Confidence

Consumer confidence is integral to the dominant issue of trust. There was much discussion throughout the research engagement with customers and consumers, and the issue of confidence was intertwined with the related issues of:

- the need for demonstrator models
- the ability to read and contribute (peer) reviews of products and services
- the availability of access points (e.g. high street), which in turn offers the potential for demonstrators, and support
- after sales support

Most Promising Business Model

Overall feedback from the industry experts' validation workshops (Figure 8 is repeated to illustrate this below) suggests that business model 3, Broker (Independent Advisor) addresses these confidence factors more strongly than any of the other models. Indeed it outperforms all of the other models against all of the key factors suggested as solutions to the barriers to new eALT markets with the exception of improved design, and comes second in terms of confidence, and access points, with after sales support being its weakest comparative showing. This is understandable considering the nature of the business model, where managed support and service solutions have yet to be fully explored in the consumer eALT market. The Broker model fits well with work carried out in the DAP Connect Economic Business Modelling project (Down, De'Ath, Hope 2013) where a managed service framework is proposed as the only viable way forward to encourage multiple and diverse new businesses to the market to create an at scale and flourishing market for eALT.

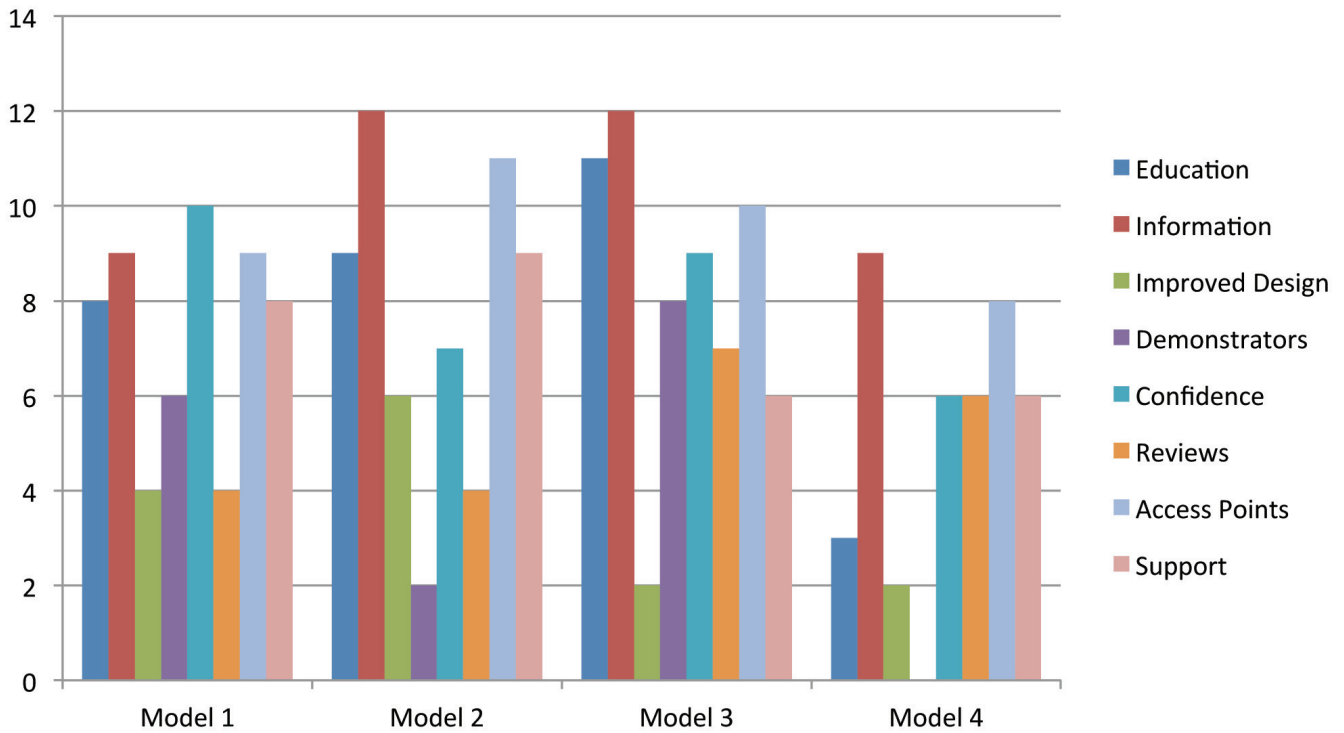


Figure 8. Cross reference of business models to consumer issues addressed

Overall the four business models proposed aim to address the consumer identified barriers to development of the eALT market, and incorporate many of the enablers proposed by consumers to address those barriers. All four models have been validated to various degrees by consumers and a series of industry experts, each with its own strengths and weaknesses, and each being appropriate to different contexts.

But importantly the business models do not exist in isolation. They are part of the wider context, and any proposed change needs to consider that context, and aim to influence external factors to increase the chances of success for any firms adopting one, or a combination of these new models. The most prominent example of this is the need for both external and internal methods of generating both education and information, for these are the catalytic stages of any customer relationship building, and hence the future market.

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Appendix B - Methodology & Validation Workshop Details

Workshop Details & Sampling:

Consumers in the 50 – 70 age range were approaching, or in retirement, and so may be starting to think of purchasing these technologies to help with everyday life. Also, they may be caring for family members, e.g. a spouse or relative and will therefore want to purchase these products for others.

Date	Venue	No.	Workshop Details
21/6/13	HDTI, GU, NH	12	Consumers Convenience sample self selecting 50-70 year-olds 2 groups of 6 Each model introduced & described 2 models each, plus plenary comments
24/6/13	HDTI, GU, NH	7	Industry Experts Purposive sampling: 7 participants Senior, experienced managers in, or considering entry to the eALT market All models considered by all participants
10/7/13	HDTI, GU, JE	13	Consumers Convenience sample self selecting 50-70 year-olds One group of 7, one group of 6 Each model introduced & described 2 models each, plus plenary comments
12/7/13	AgeUK, GU, JE, SM	6	Industry Experts Purposive sampling: 6 participants Senior, experienced managers in, or considering entry to the eALT market All models considered by all participants
16/7/13	HDTI	1	Industry Expert Purposive Sampling 1 interview/ workshop Senior, experienced manager/ industry expert All models considered

A purposive sample of experts was chosen. Senior managers were asked to participate, particularly those with significant experience from a variety of organizations from across the sector, including:

Sales Director National retailer for independent living products and services
Business Development Manager & Telecommunications Consultant UK healthcare solutions provider
Sales Director National & international B2B health & assistive living products
Programme Lead ALT industry expert
Commissioning Manager (Assistive Technologies)
Chief Executive Third Sector network of disabled living centres
Managing Director Regional retailer of ALT products
Commercial Director International healthcare product manufacturer
Regional Sales Manager National manufacturer and supplier of independent living products and services
Product and Marketing Manager National manufacturer and supplier of independent living products and services
Marketing Consultant National third sector association of community care organizations
Owner & Director E-tailer and independent living advice
Director & Consultant Independent living technologies & services.

Appendix C - Comments by Participants in the Consumer Workshops

Model 1 - Complementor

Consumer Workshops. Is there anything about this model that would make you choose this type of service over another?
If one partner was a very trusted organization
Where 2 brands can complement each other's services and have similar brand values. Brand values often conflict or 1 brand is too dominant
If there were a clear correlation between the two, supported by educational messages (video)
If cost or method of payment was suitable
No. This covers too wide a spectrum
Not sure. It would depend on the link, how it was marketed/ presented
If it leads to more availability of ALT products at a lower cost
As a carer at 100 miles distance – time is a premium + speed and ease of purchase + awareness of other products/ services
Possibly price, though I should be able to buy unbundled products cheaper
Choice is key. Being able to make a decision to buy as opposed to having products sold to you.
Value for money. Simple to use. Good service and keeping me informed of changes
The possibility that you might learn about a useful 'other' product

Consumer Workshops. Is there anything about this model that would make you avoid this type of service over another?
If it became too obviously a hard sell
Tendency to over-bundle products so that you pay more for products/ services that you won't use or benefit from
I prefer to purchase one product only (the one I have set out to purchase). This may otherwise involve additional expense and a product I do not necessarily want or need.
Concerns about information security Suspicious about the value of the bundle
Depends on the choice of bundle on offer, whether of interest
No.
If too pushy
If promotion was too forceful/ too persuasive sales techniques
If cost driven up by companies joining together
The suspicion I am being exploited/ hard sell etc. Amazon "other customers bought it" is preferred
Being sold a product I didn't need
If overpriced. Not serviced if things go wrong
Bombardment from other producers on products I definitely don't want
The great value of this to me is to make me aware of other products

Model 2 - Diversifier

Consumer Workshops. Is there anything about this model that would make you choose this type of service over another?
Trust and respect. But this will not happen.
Expertise might be lacking.
No
Proof that it worked well. IE feedback.
Reputation and personal experience. Recommendations from others, feedback and reviews. Quality of customer service.
It enhances the reputation of the big company. A good way of publicising the product of the smaller company. The price of a product being less than a similar product e.g. own brand
If it was cheaper or more efficient
Time constraints, useful to buy in one place
Convenience. Product dependent. Reputation.
Recommended by another person such as a friend or family member

Consumer Workshops. Is there anything about this model that would make you avoid this type of service over another?
Expertise of the provider. Profit generation.
Smacks of profiteerism
Yes
There is an issue of trust. Danger that those lacking expertise would enter the market with their aim being only profit.
Won't use it unless there was positive trust worthy feedback
Experience with company and feedback.
Poor products, or being seen not to be the expert in the product e.g. a completely different company paying 'nuddy' service to a health monitoring product
If it was more expensive or less efficient
Customer service, if the service was poor I would avoid. Inferior products, I like value for money so I like products to last and be used often
Cost. Product dependent
Again, if someone told me of a bad experience within the service I would not use it

Model 3 – Independent Advisor/Broker

Consumer Workshops. Is there anything about this model that would make you choose this type of service over another?
Availability at short notice e.g. after discharge from hospital
Control of service by the customer or consumer. Transparency of independent advice, transparency of cost of the service. Potential for saving money, if advice given is good.
To have independent advice would be very useful
If the adviser was transparently independent and commission or rewards were clearly stated. The qualifications and experience of the adviser would be key.
There needs good oversight to ensure that the independent adviser is a. really independent and b. expert,, well-informed, up-to-date. If this applied I would choose this model
There are services available. Broker services exist in various areas
No. I do not think it would work when the information is available elsewhere e.g. doctors, OT, hospital etc
Should be stratified, beginning with an IT-based triage model to identify needs (from an early age), and point to products/ services from which I would benefit
Trust -- do I think the people giving me advice are genuinely independent
Various places would appeal to different consumers e.g. bespoke shop/ Practice/Internet/community group
Choice and independence it offers. It recognises that the wealth of information and large number of products are difficult to assimilate by individuals. Utilising an expert who can offer advice and suggestions on products, acting in a triage way
Good advice. Value for money. Knowing it was right for me.
Being able to have a personal assessment and recommendations that suit my condition and budget

Consumer Workshops. Is there anything about this model that would make you avoid this type of service over another?
If cost was too high
It costs were not transparent or buried in commission charges
If not fully independent or accountable
I would be very wary of using an independent or personal adviser . I would need to be convinced that they are truly independent and also experienced and knowledgeable about my particular needs I prefer to research a range of products myself
If the independence was compromised. If the cost of PII or accountability systems make it prohibitively expensive
Fears about -- independence of independent adviser; -- how expert and up-to-date the adviser is
This service is not applicable in most service model
Would not be willing to pay someone who may not be independent, fully knowledgeable etc
Not mutually exclusive. Need multiple models
Difficulty of use. Suspicion over the use to which data will be put -- e.g. passed on to insurance companies
Hard sell/Commission driven/dishonesty
Use of IT, ensuring information provided by users remains anonymous and confidential. Concern over sharing information with large organisations such as insurance companies
Not enough information. Not value for money
Lack of confidentiality and being swamped by too much advertising of things I don't want -- pressure to buy

Model 4 - Insurance

Consumer Workshops. Is there anything about this model that would make you choose this type of service over another?
Not really. As soon as insurance is used in Apple's rise. Matter of trust and perception. Idea is desirable but not by insurance companies. Perhaps charities or someone else
It could work within a limited context. It would benefit those who could afford. Governance would be important (charity)
Depends on the product details i.e. the minutiae of the model
No.
It is less undesirable than others. It has some attraction at a time of scarce resources
Doubts on how it would work.
Recommendation from a friend or family member
Assessment of insurance -- better informed help, guidance and advice
Existing conditions/family circumstances. Wealth/part of work package
Special expertise being offered. Specialist knowledge. Quality of products, need to be practicable and reliable
Cost
Convenience if you got everything at once in a single lump sum. If you paid monthly you can get what you wanted when you need it.

Consumer Workshops. Is there anything about this model that would make you avoid this type of service over another?
Difficulty and risks in bringing a claim
Most of it. See above. Would be fine for some maybe, but not personally. Didn't like this model at all.
ethically wrong. Builds a two tier system. Would require trusted safety netting
Its product details
Driven by a profit motive. Creates a two tier system
Again it is less undesirable than the others
Feel it would be difficult to claim. Would had to cover a wide spectrum of problems
Try to look after myself so I would not need a service like this
Maybe monthly payments on assessment model
Reputation. Reliability. Word-of-mouth.
Too expensive. Not flexible in what you choose
Cost
A feasible model
Depends on income, condition of person etc. Depends on the circumstances. I would prefer to be in control rather than handing it over to a company

Appendix D - Summary of Issues Raised in the Interview Analysis

1. There is widespread ignorance of what products and services are available
2. Raising awareness is unlikely to emanate from the NHS and Social Services as they do not have the funds. This therefore needs to come from industry.
3. Signposting from trusted advisors (often medical, or third sector) to local retailers would help awareness, but crucially this has to be balanced by the availability of knowledgeable retail staff. In addition, even if the medical practitioners had the time, or desire to signpost, it was argued by the International B2B ALT Supplier that “the awareness of GPs around assistive technology generally is pretty poor and they probably don’t even know where their local mobility retailers are to signpost them in that direction.”
4. Information should be available through diverse media, so that consumers increase their awareness through their preferred channel.
5. A High St. presence is important, partly to increase normalization and convenience, and partly to increase awareness.
6. Drop-in centres can also aid in awareness raising, and have a good ‘word of mouth’ effect.
7. There is a need for the industry to provide holistic ‘solutions’ rather than specific products or services, possibly through co-operation between companies offering different parts of the solution. These partnerships need to be based on mutual trust, in terms of the service delivered.
8. Products need to be able to work within a broader system, and display greater interoperability between devices, but ultimately it is the relationship between the technology and how it supports the carer or the consumer to live better independently.
9. There is an opportunity to share customers, especially where companies have complementary offerings, rather than directly competing ones.
10. The Rental revenue model may provide a revenue stream that overcomes initial customer caution, and allow flexibility for changing conditions.
11. There are opportunities to diversify, not necessarily through a full commitment of resources, but through forms of outsourcing, own branding, or re-badging.
12. Technology is not only seen as enabling opportunities in the product and service areas of the market, but also allowing new channels to market, most obviously through on-line provision.
13. The need to focus almost exclusively on cost for the statutory sector has a dampening effect on innovation
14. There is a need for a shift in mind set, from ‘selling’ to ‘marketing’
15. There is a need to look at holistic solutions, including prevention, rather than ‘fixing’.
16. Whether it be achieved through large volumes, or through higher margins, reflecting higher added value, the economic viability of future cycles of product and service development need to be funded.
17. The need for new competencies to be able to service the demands of the new eALT market
18. There is a clear demand for added value services and the development of customer relationship management.
19. Trust can be sought and gained through different means. Sometimes customers are looking for some combination of expert, or knowledgeable or independent advice. This can come from medical practitioners, knowledgeable retailers, third sector organizations. Alternatives, or partial alternatives appear to be to allow customers to try things out, have strong after sales support, or returns policy, or to allow a rental option.
20. There are multiple and diverse customer segments, but these can be identified, categorised and served. From the more complex or expensive products and services which require greater levels of service and support, through to the ‘pick off the shelf’ products at the multiple retail outlets.
21. There are situations where co-operation between direct competitors can help all concerned. This is different from the earlier point where non-competing firms may collaborate in order to complement each other’s offering, and end up both selling more.
22. There is a need for a government “push” to help the market develop.

23. Risk is an issue, in terms of the investment required, particularly for large scale operations, and the lead time in gaining a return on that investment.
24. There are an established variety of channels through which companies can advertise, inform, and persuade their customers, and potential customers, and it is important to consider each method, and combination of methods carefully.
25. On-line advertising, and the direction of potential customers to your site through Search Engine Optimization Management are important, but especially so for firms that use the internet for a significant proportion of their business.
26. Radio or television advertising can be costly, but also very effective if targeted appropriately, pseudo advertising may be possible in order to raise the profile or awareness of your products through press releases, interviews or features, or occasionally celebrity endorsement.
27. Targeting your advertising and marketing communication through customer segmentation, enabled through market research can make your marketing efforts more effective, an important consideration when limited marketing budgets are available.
28. The use of expensive catalogues and similar written materials can be leveraged by targeting intermediaries such as Occupational Therapists, who in turn can deal with multiple 'customers'.
29. Providing a 'good' experience for customers can encourage significant 'word of mouth' advertising, which, though difficult to measure, can be a very effective method.
30. The importance of brand is emphasised in a number of instances.
31. There are clear echoes of the barriers identified directly through consumers, particularly:
 - a. Consumers often have difficulty in identifying themselves as needing assistance
 - b. Stigma is often associated with ALT products and services
 - c. There is poor awareness of what is available, or where it might be found
 - d. There is a need for advice from a trusted, or independent source that is easily identified, and available. This is particularly so for more expensive items.
 - e. Sometimes a brand can stand as a proxy for trust
- f. Sometimes terminology only serves to obfuscate rather than encourage clarity of message
- g. Complexity of technology and products discourages consumer engagement
32. It is important that business models are consistent, in other words the value proposition and customer relationship must reflect the ability of the firm to support the key activities required by your chosen customer segment.
33. Business models built around "solutions" to customer problems are desirable, these may be provided by working with partners, or outsourcing to other firms that can be trusted.
34. Rental for products (or subscription for services) may be a possible way forward, certainly for certain customer groups (e.g. short term condition, rehabilitation, or degenerative or changing condition).
35. Diversification, or partial diversification is another means of doing this, but it is important not to stray too far from your core competencies, and what you are known for.
36. There are growth opportunities, if you are flexible and closely follow your customers' wants and needs.
37. Be aware of up to date, efficient (often through the use of technology) methods of operating your business to maintain basic discipline with regard to stock availability, communication and efficient systems.
38. An 'insurance' model was suggested, with one of the big providers diversifying into continuing care, tele-health and the like.
39. A growth area, that would be sustainable on a large scale for firms would include a service solution, rather than the provision of products. This would allow a bundle of products and services that would provide added value, which could increase the margin and the ongoing relationship.
40. There are many variations on what customers desire, and how they want delivery, which offers opportunities to the industry to grow.
41. Competition is an issue, particularly on-line, because it makes price comparison so much easier. However, price sensitivity in other contexts can be influenced by added value service, and through the development of brand.

42. There were arguments from both sides, but a majority felt that demand is growing, for support for changing lifestyles (including those of carers, or relatives), for more choice, and better design.
43. There seemed to be some agreement that developing awareness could be one of the most useful changes would be to increase awareness and access to advice for consumers.
44. So although there is some debate about price sensitivity, it appears to be in the specific segments of low value, low complexity type of products. The majority of respondents seem to have a consensus that higher added value can carry higher margins.
45. It is important for the organization to have a consistent strategic approach across the different business model elements Customer Segments, Channels, Customer Relationships, Value Proposition, Revenue Stream, Cost Structure, Key Activities, Key Resources, and Key Partners. Examples support this view, but also highlight that individual elements, and combinations of elements are likely to differ in importance in each situation for each organization.

Appendix E - Example eALT Products and Services



Automated Lighting



Medication Dispenser



Blood Pressure Monitor



Falls Detector



Extreme Temperature Monitor



Environmental Controls

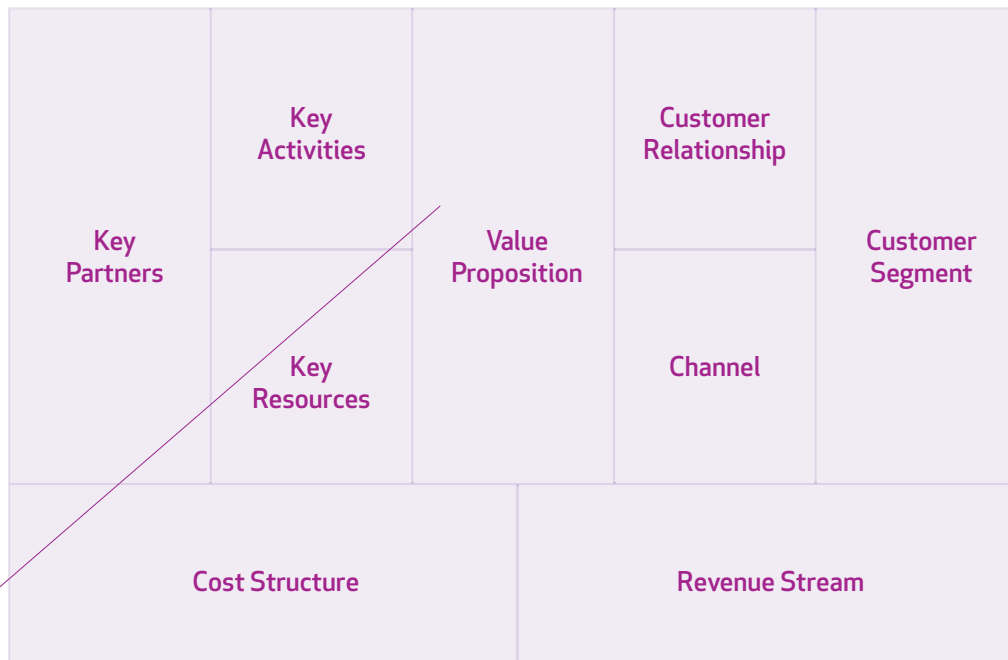


GPS Monitoring System



Activity Monitoring System

Appendix F - Summary Comment from Consumer & Industry Workshops on Business Models Canvases



Is it feasible? The answer has to be yes, if this is what consumers/customers want

Bundles – do you want to mix and match yourself? Or have everything included under one roof? Products need to be interoperable. The Chubb approach – partnered with several brands, to offer a full solution (package) to people following assessment. Some of the same solutions offered under the SAGA badge, separate to Chubb

“Ask SARA” – mentioned a lot, but needs to link with ability to buy the products, currently only signposting which frustrates users as they are often not able to buy direct from manufacturer.

If brands are complementary e.g. Telecare and telehealth.

Natural interlinking between products and companies could be exploited, e.g. if you need a ramp then you might also need...

Can this model help with awareness e.g. anti-virus? It might not be what you would consider at the time of buying the computer, but if it is there you might use it. The potential to get something to someone before they need it?

(i.e. you have the antivirus before you get a virus, preventative – but if it wasn't there with the computer you might not think to buy until you had a virus)

This model could work well with established brands and products and bolt on brands and services that people are not aware of and thus increase awareness

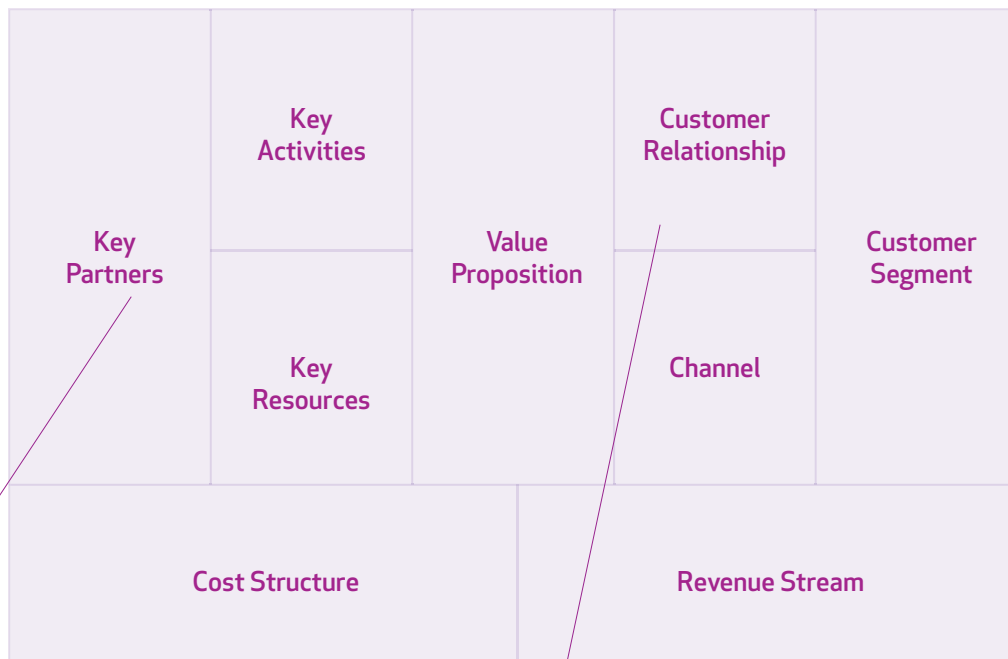
Risk – you can signpost people to other products or services, but accessibility can still be an issue (an argument for bundling products?)

You would trust the association from the better known company – the main trust relationship is between the client and the retailer.

Consumers can feel ripped off even by larger/trusted businesses if not done right, e.g. Age UK sell scooters but put a premium on the price. Too much of this impacts the consumer.

You could promote the same thing under a new brand name if you are combining products and services but are concerned about reputations of existing brands being tarnished – solution is to create a new brand!

Model 1. Complementor



Alliances to tailor product packages (between different companies) could potentially work

They need a recognised stamp of approval so you know you are being signposted to an OK product

You could share information with other companies – provide your complementors with information packs and then they can signpost

Risk – reputation of one business could damage another, or could change over time due to partnership. How is this managed?

Companies may not engage with this model “the risk to our brand is too big if it goes wrong” too risky for some companies?

Or is there a level of trust between some companies?

How do you use/integrate the brands? Who is seen as the ‘lead’ company?

Does trust need to extend to all parties in a bundle or is it enough for one lead party to have it?

Tunstall (or other unknown company) would be piggy backing on the reputation of BT, but what is in it for BT (or the other larger, trusted, established company)?

Risk of perceptions of upselling – can lose people if you don’t get the message right

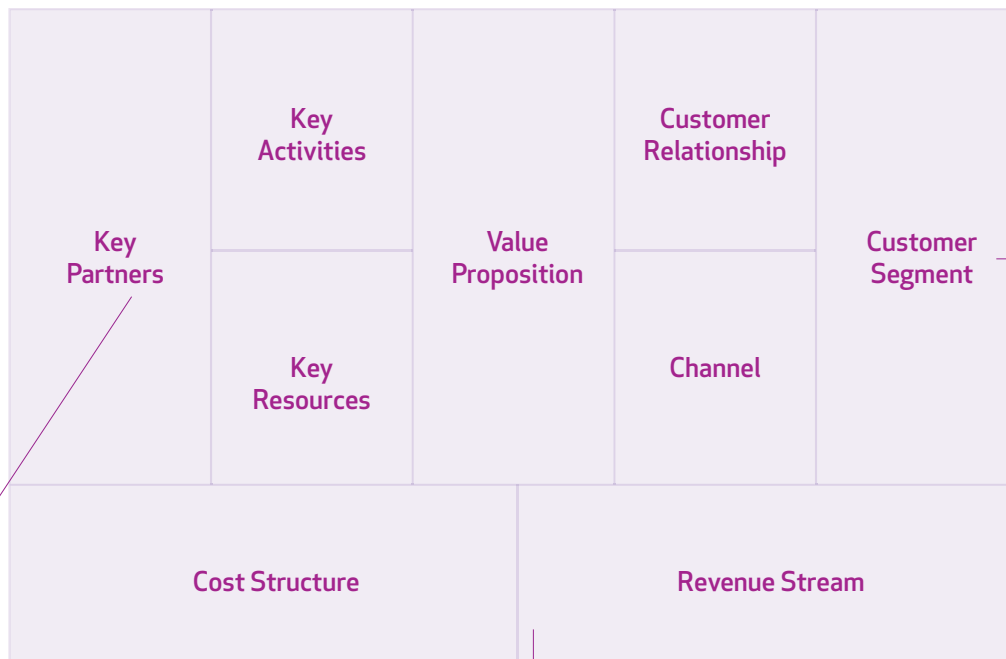
By providing equipment for free you take away the need for knowledge – the user has less need to find out about what they are using.

Knowing the name/brand can be enough to elicit trust, if it is the right brand. It doesn’t necessarily need to be the area they are already associated with, e.g. Chubb. Customers trust the brand as associated with security. Tunstall not known as a brand even though that is their area, so one brand can badge another

Supposedly objective companies e.g. SAGA or Age UK, might be reluctant to endorse specific products/services

Chubb are already using this approach by working with others on things like environmental controls.

Model 1. Complementor



Who is the lead business? Who leads the upgrades and reviews?
Who controls the trigger mechanisms (to review and upgrade?)
who is the point of contact for the consumer? Who is the
consumer facing side of the bundle? Maybe the model needs to
look more like this... (small circle intersecting a larger one)

Still need worry free warranties for all aspects of the service

How to bridge intraoperability gaps with competitors? E.g. I
have Tunstall products already, want to integrate a Tynetec
product but currently can't.

"it's ok when you buy it but what about when it goes wrong?"

How the model operates and how it is presented to consumers
not necessarily exactly the same

Reduction in statutory supply not equal to increased uptake
in private market. Is there a discrepancy in what people say
they will do and what they actually do? i.e. "I would buy a nicer
product if it were available to me" but when it is available, they
do not. Where is the willingness to pay captured?

If the purchase cycle is sequential then much of the latent or
expressed demand may be reduced at the early stage because
of insufficient education or information

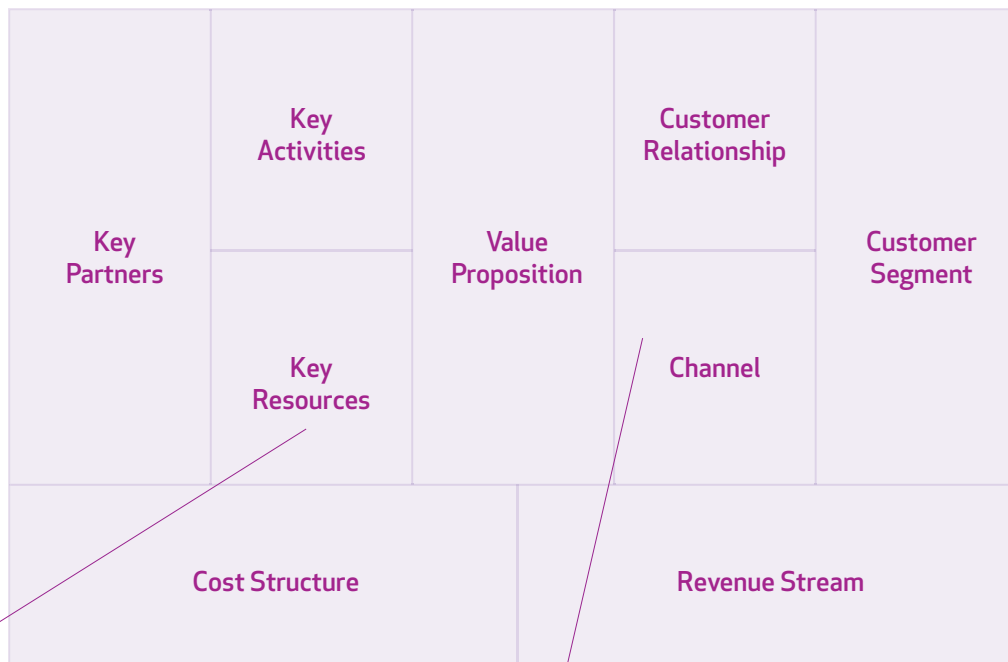
US bariatric supply model – have used successful leasing
models

Purchase model vs leasing

CHOICE for consumers – do businesses promote products
consumers don't need or want?

Can this model help with awareness? E.g. anti-virus. Might not
be what you would consider at the time of buying the computer,
but if it is there you might use it. Potential to get something to
someone before they need it? (i.e. you have the antivirus before
you get a virus, preventative – but if it wasn't there with the
computer you might not think to buy until you had a virus)

Model 1. Complementor

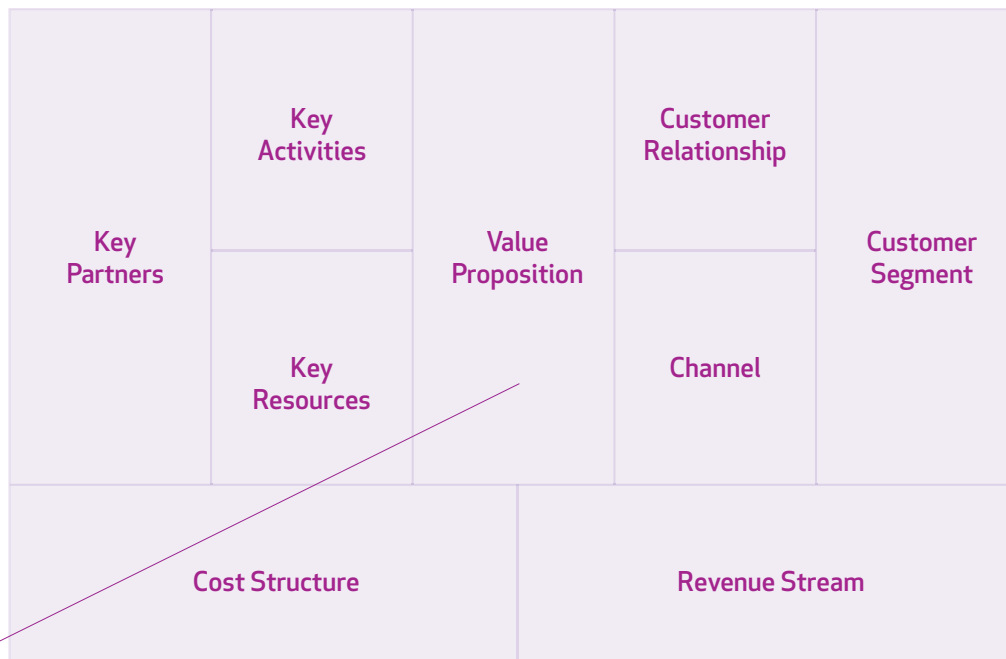


Would need a considerable amount of marketing to raise awareness of the less well known brand

You would trust the association from the better known company – the main trust relationship is between the client and the retailer.

Ask SARA – mentioned a lot, but needs to link with ability to buy the products, currently only signposting which frustrates users as they are often not able to buy direct from manufacturer

Model 2. Diversifier



Though not all complex needs could be met, this approach could raise awareness of solutions and ALT

There's a lot of confidence about big consumer brands

You can no longer get eALT/AT from some of the businesses who previously started selling

Added value to existing shopping experience

What does the brand stand for? This will influence success

Risk of brand dilution

If awareness increased, smaller brands could contribute but at the moment this would need to be a bigger brand with substantial activity. Can leverage costs and make sure everything is covered.

Do brands then need to change their name? E.g. British Gas might start to become 'everything for the home' and therefore need to drop the 'gas'

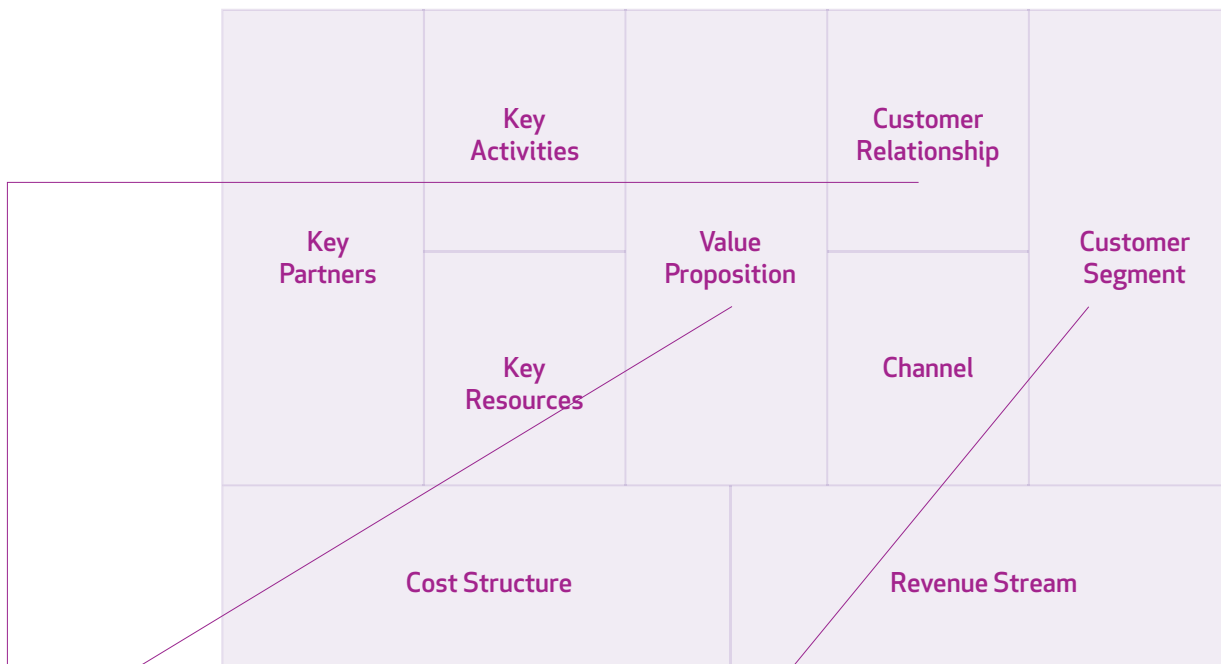
Need to know your customer base – e.g. can O2 reach people with 'help at home' if they are a young brand? Are older people using mobile networks etc and engaging with the brand currently? Are they marketing at the children/grandchildren as customers? They are not associated with healthcare, are they too removed?

Brand awareness crucial but not a guarantee of success e.g. Boots trialled dental care but it did not work, not enough profit per square foot. Philips now mainly doing healthcare products but people don't realise

This model at scale = reduced variety in options/solutions? Trust more likely from brands seen as independent e.g. Age UK, SAGA

The model will be more likely to work where the product is not complex, lacks diversity and has little variation. If you have a large distribution network like British Gas it may work – and with them leading it may raise awareness and lead people into other products.

Model 2. Diversifier



Should the brand signpost to others? Not if it dilutes what you are doing.

Microsoft is moving away from too much diversification but this is leaving it more vulnerable to competition.

The language in managing upgrades needs to be considered, otherwise you could be saying "have your needs got worse?" – stigmatising could put people off – THIS IS TRUE FOR ALL MODELS.

John Lewis? What are people's preferences re: brands?

Customers may have existing good relationship with company, and may be more convenient than GP etc – e.g. pharmacist, can go and see without an appointment at own convenience and many have ongoing relationship as well as trusting

A risk of this model is that the solution is less suitable through scaled approach – can miss more niche needs/solutions

Better for consumables

How to package for differing customers, retail vs. local authority – difficulty in planning numbers for different types of customers

Different types of product will suit this model differently – impulse purchase/plug and play vs considered purchase needing ongoing support. Needs to be considered

Has to be a brand 'for you'

What does the brand stand for? This will influence success

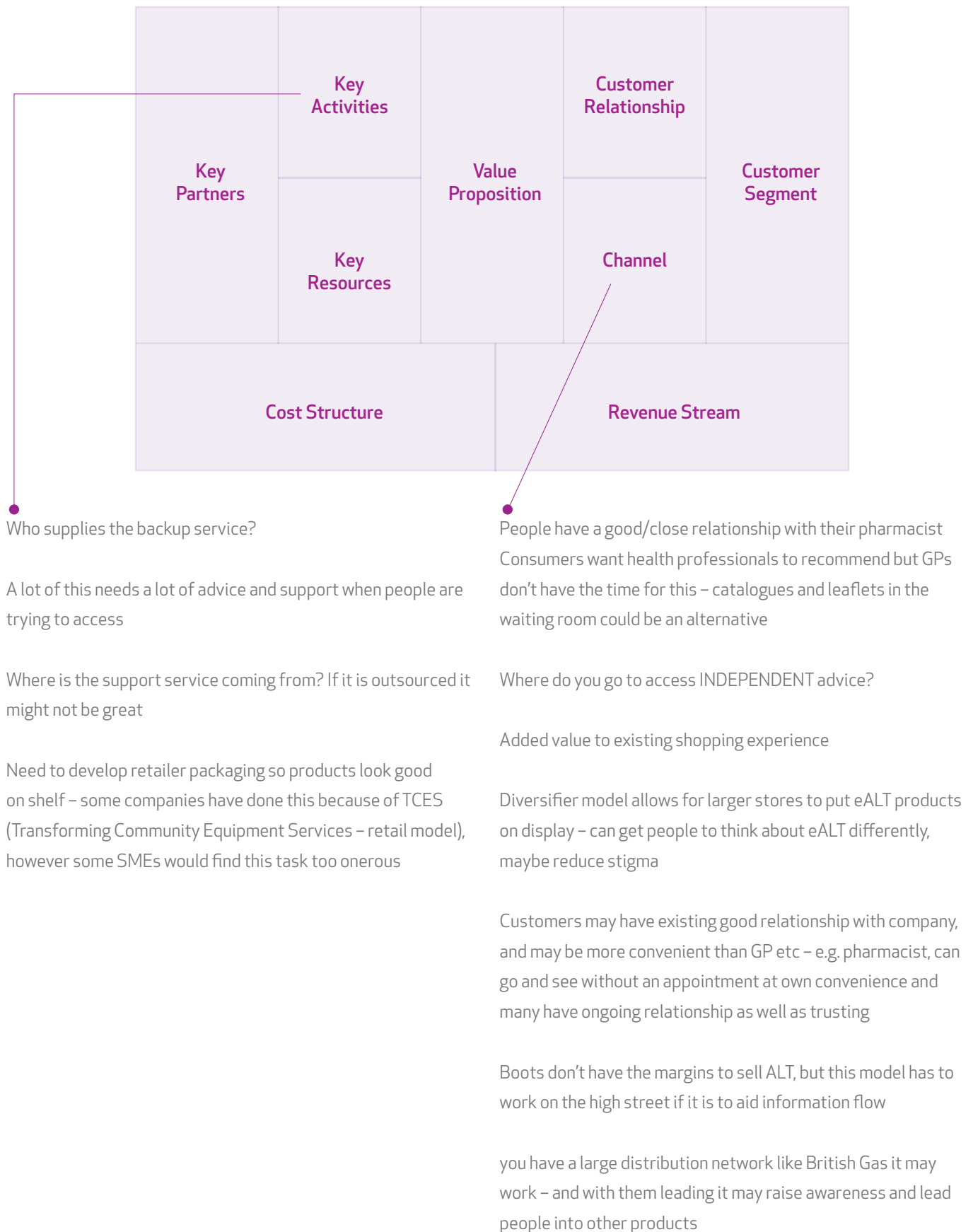
If awareness increased, smaller brands could contribute but at the moment this would need to be a bigger brand with substantial activity. Can leverage costs and make sure everything is covered.

Need to know your customer base

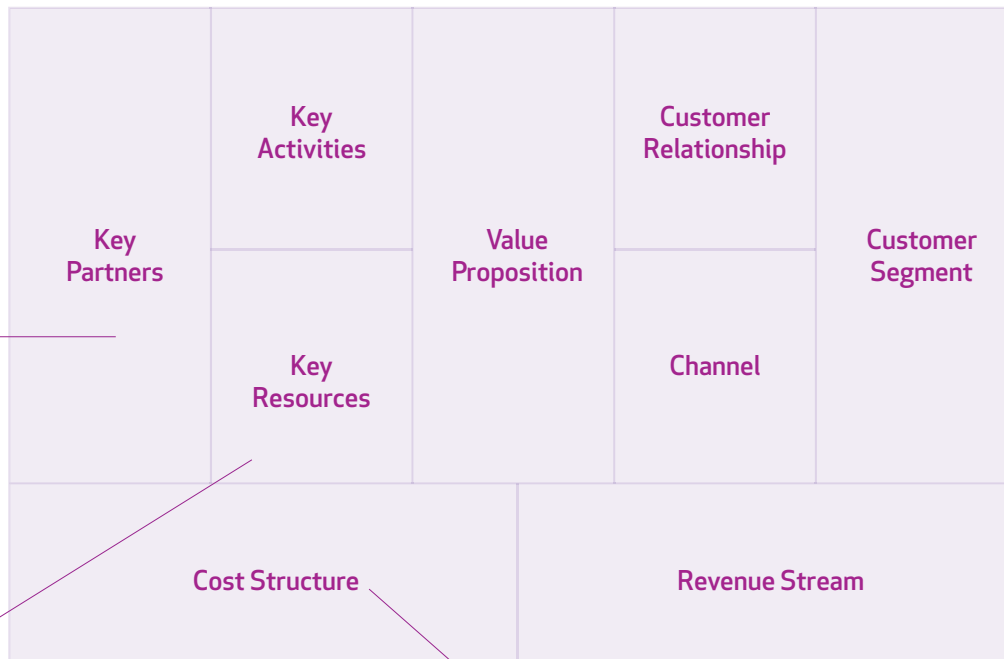
Phillips have found that their own consumer base does not necessarily translate to another product. However, Nike seems to have done this.

The model will be more likely to work where the product is not complex, lacks diversity and has little variation. If you have a large distribution network like British Gas it may work – and with them leading it may raise awareness and lead people into other products.

Model 2. Diversifier



Model 2. Diversifier



Big companies with national footprint could engage with this model

A lot of this needs a lot of advice and support when people are trying to access

Can staff in existing non eALT businesses provide the level of knowledge you need? Or do you need to rely on what's on the box? E.g. B&Q and Halfords sold eALT but staff couldn't give the level of advice needed

Risk – can staff offer the required level of knowledge to deliver this? E.g. larger chain stores like Boots/Tesco. Example of Halfords offering mobility scooters, but staff could not offer expertise and support to customers despite being trained

Who supplies the backup service?

What if the larger business's reputation is tainted by subsuming another business's product or service under its own branding, e.g. M&S Energy (mis-selling)

May be better for simple eALTs rather than more complicated products with a full service behind.

Where is the support service coming from? If it is outsourced it might not be great

Who accepts the liability if something goes wrong?

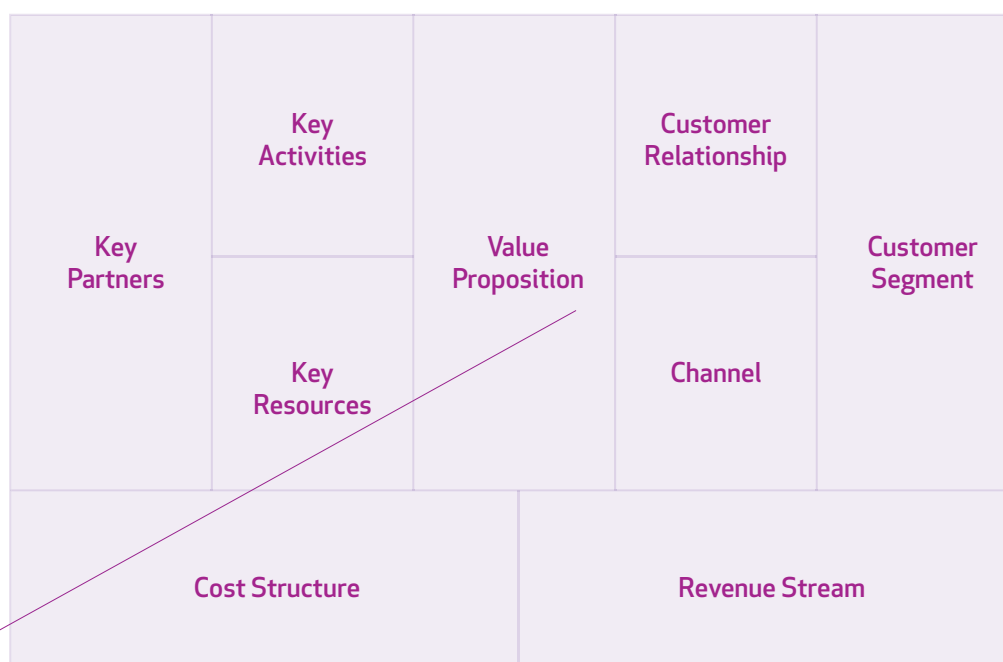
SMEs – for them to comply with mainstream retailers branding guidelines/terms and conditions – would be too onerous/expensive

Cost of packaging

If awareness increased, smaller brands could contribute but at the moment this would need to be a bigger brand with substantial activity. Can leverage costs and make sure everything is covered.

This model at scale = reduced variety in options/solutions?

Model 3. Broker (Independent Advisor)



What are the limits of this model? At what point does it become more of a service aggregator?

Transparency of advice – use language like “preferred suppliers” – highlight other products and services

Is it independent?

Who does the customer phone when something goes wrong?
How do you manage upgrades and other added values?

Software model – manufacturers won’t give out costs, e.g. ASKSARA full of products with no prices

Carphone Warehouse – give “independent advice” BUT based on commissions, and offer complete packages

Software – e.g. ASK SARA – will die on its feet – how does it make money?

Interesting that people did not see mobility shops as already offering this – too much stigma attached to going in one, even though they offer much of what was seen as positive about this model

Difficult for advisor/broker to have true independence – someone needs to pay for this service along the line. Can have preferred partners or commission but then not independent.

If this model worked successfully, fits well with personal budgets

Phone calls to check up, is the equipment still useful, do you need anything else?

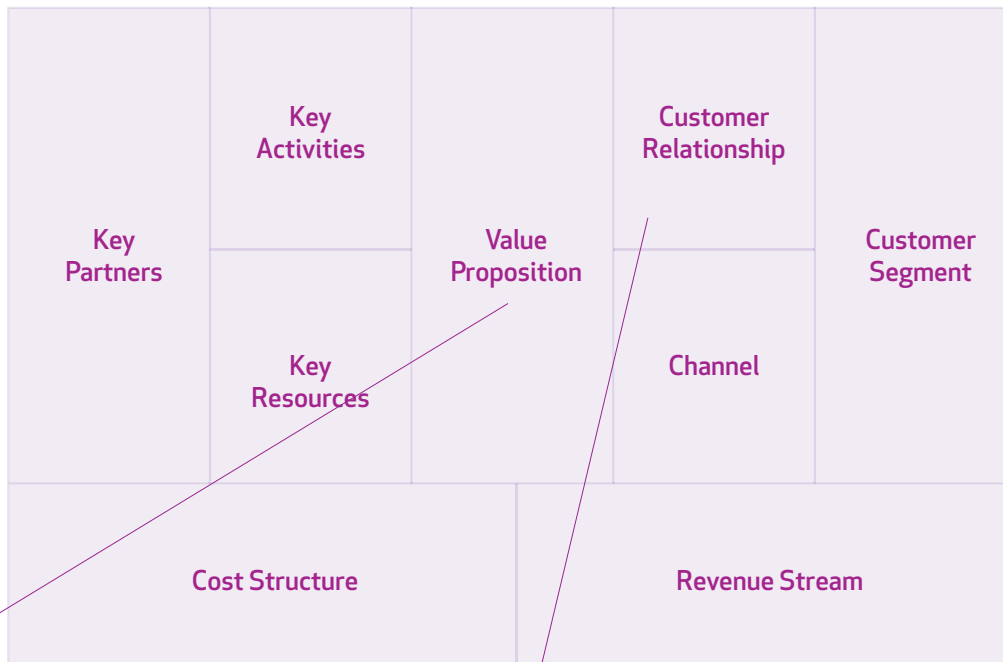
Not feasible to have an OT for everyone, but there is a role for independent organisations to showcase products e.g. Ask Sara, DLF, Medilink.

Breaks down a barrier to entry for smaller companies, by allowing them to list their products on advisory website/catalogue, need an ‘amazon’ which focuses on ALT

Who pays and how???

Is this just a retail approach? Travel agent model – not flourishing in its own field unless it is for a more complex package where you can add value.

Model 3. Broker (Independent Advisor)



Can a retail model be a source of independent advice? If there is a choice, yes.

The optician model is a successful one: a medical assessment + a retail arm.

Purchase through websites such as Amazon provides customer reviews of a product.

The NHS would be the perfect brand to take this model forward!

Who is the business relationship with? Who do you purchase from?

Can a retail model be a source of independent advice? If there is a choice, yes.

Could include ongoing relationships and management rather than sales calls

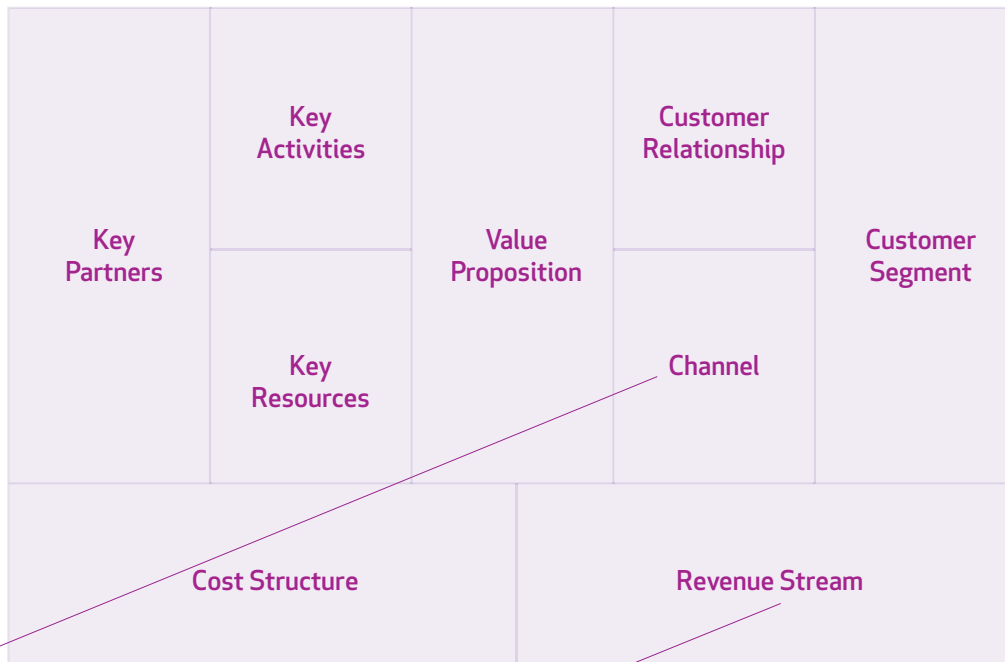
"How's it going?" Happy = no pressure, unhappy = upselling
Tech minded people will want an upgrade so will want to access the service repeatedly

Software – don't want to tick or untick the wrong box and end up with lots of marketing emails

REALITY = can't have independence

Campaigns – need to encourage engagement with this model before crisis point, MOT approach – get equipment into people's homes to use every day which then becomes useful at point of crisis

Model 3. Broker (Independent Advisor)



What about 3rd sector to provide advice? People who are already Trusted Assessors?

Trigger/access points – conditions, reassessment, when guarantee runs out

Referrals service – charity gets donation for successful signposting?

Interesting that people did not see mobility shops as already offering this – too much stigma attached to going in one, even though they offer much of what was seen as positive about this model

This model is good, but maybe not scalable – an advisor/service who is trusted, trained and omnipresent will be expensive. Could get around this with combination of advisory service (e.g. online) and in-person advisor

Not feasible to have an OT for everyone, but there is a role for independent organisations to showcase products e.g. Ask Sara, DLF, Medilink.

Breaks down a barrier to entry for smaller companies, by allowing them to list their products on advisory website/

catalogue, need an 'amazon' which focuses on ALT

The optician model is a successful one: a medial assessment + a retail arm.

Could a validated website deliver this? College of OTs. DLF. Purchase through websites such as Amazon provides customer reviews of a product.

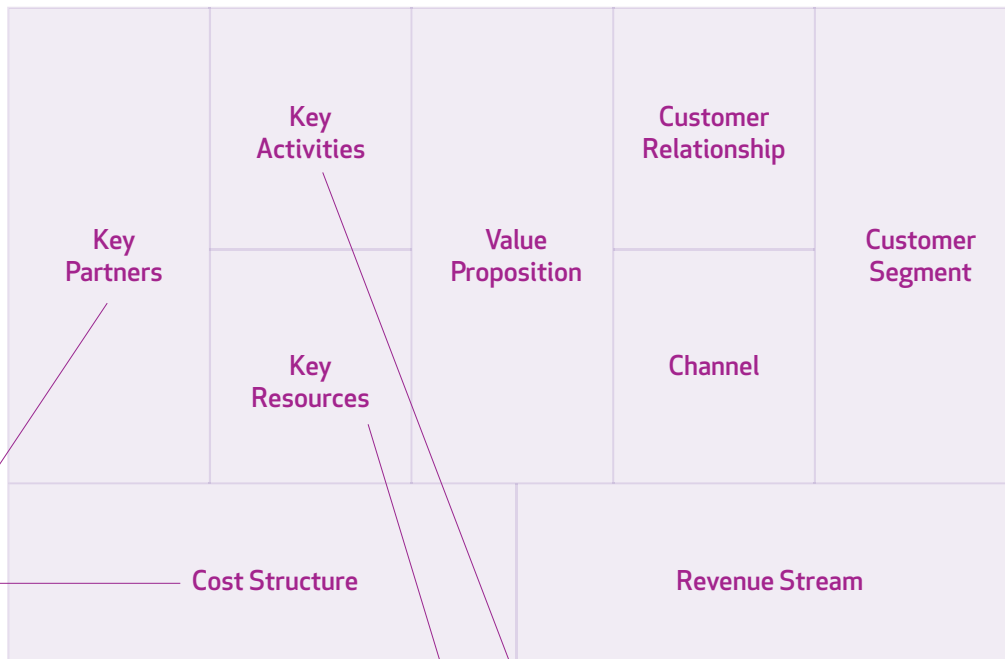
Need advertising campaign to raise awareness, e.g. Staffordshire County Council's "Don't buy mum chocs for xmas – buy AT"

● Difficulty with manufacturers being transparent about pricing – not always in their interests as different suppliers will sell at different prices.

Possibly a retail model e.g. Boots stock a range of products and staff can help advise, but you pay Boots, But this approach bad for scalability

How would it be funded? Who would pay for any sort of domiciliary visit?

Model 3. Broker (Independent Advisor)



“Dependent” rather than independent model?

What about 3rd sector to provide advice? People who are already Trusted Assessors?

Referrals service – charity gets donation for successful signposting?

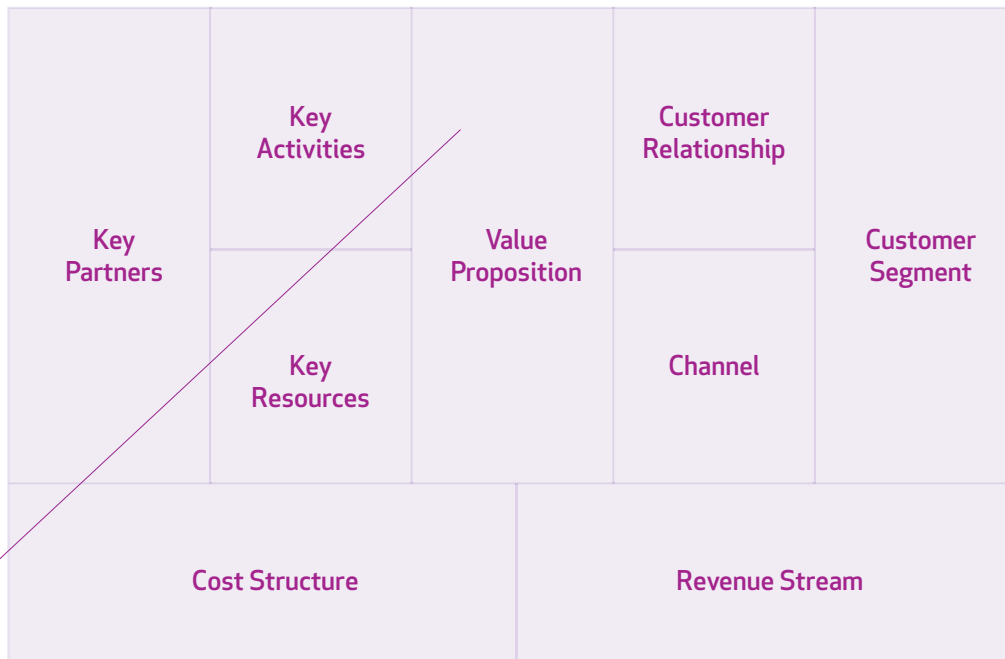
Risk – how do you fund it in a way that is independent?
How do you cover costs?

The trained, trusted, omnipresent advisor would be a challenge to provide. Perhaps a combination of a web based approach and a personal advisor might be the best approach?

Trigger/access points – conditions, reassessment, when guarantee runs out

Could include ongoing relationships and management rather than sales calls

Model 4. Insurance



Don't like the word insurance? Assurance instead?

Would annuity plans be better? Guaranteed benefits plan
"extra level" insurance?

Policies will change if you have a condition or development

Scalability? OK now, but as ageing population increases, is this sustainable – similar to pensions problem.

Retirement village model – adaptive and progressive levels of care

Like a funeral plan? Just needs to be marketed in the right way

More of an American model – we are going to have to pay for and look after ourselves

Children might want the company to pay out for their parents, but their parents might not want the products

Need to focus on how money could be spent to increase time and control in life

GPs – keeping people from the door?

Hospitals – reducing admissions/readmissions/severity

Great for when awareness is raised and people will engage more, but doesn't encourage the acceptance of need

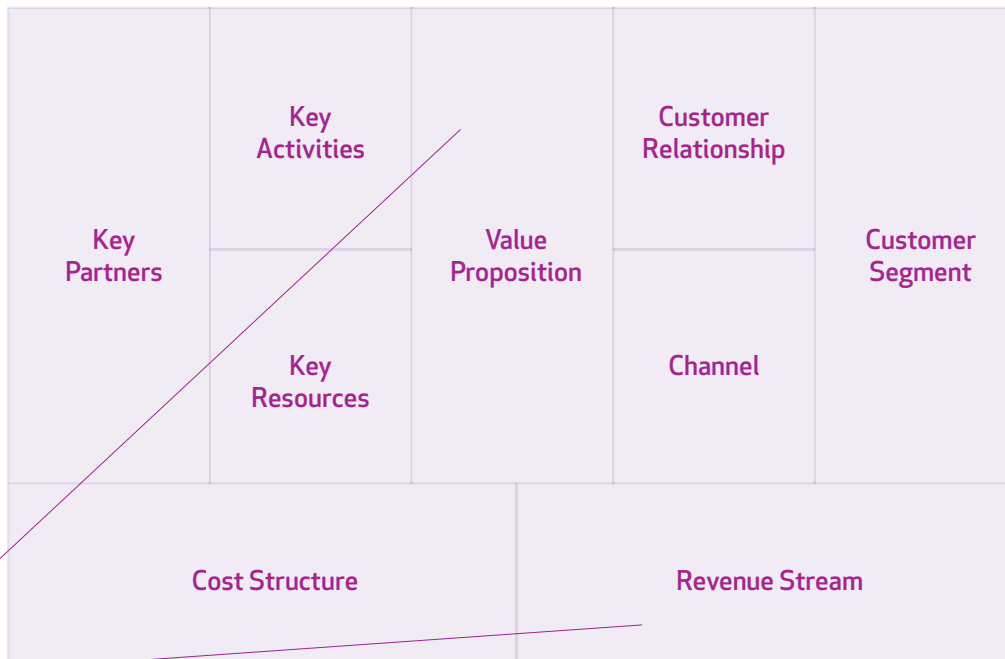
If someone has a cash plan, how do they know what they need to get? This model doesn't account for making people aware of products so a) why would they take out this insurance and b) who helps them decide what they need?

This idea is 'barking mad' – virtually everyone could need something, so how do you work out premiums - do people become uninsurable if they need a lot?

Used in Europe a lot due to lack of NHS

Could be a good add-on for existing company e.g. Bupa

Model 4. Insurance



In terms of telehealth insurance companies should be interested.

What happens to those who can't afford this model?

Perhaps insurance is the wrong word – cash plan? A cash plan for care feels attractive / imaginable. E ALT could be part of that plan

Will people have the money they need at the point they need it?
Easier to encourage younger people than older people to put small amounts away per month

If you can't envisage the breadth of what someone may need, how will premiums be calculated?

This model pays for something – only one which provides a revenue stream, but does not solve the problem of information, does not provide anyone with more knowledge or awareness

The trigger points for insurance pay out are likely to meet FACS (Fair Access to Care Services) criteria so would get state help anyway

Will the NHS generation want to pay? Already pay national insurance so will they see the benefits of paying a private company? Or is this for the type of people already using Bupa etc?

Scalability? OK now, but as ageing population increases, is this sustainable – similar to pensions problem.

How do you determine what a reasonable premium is?

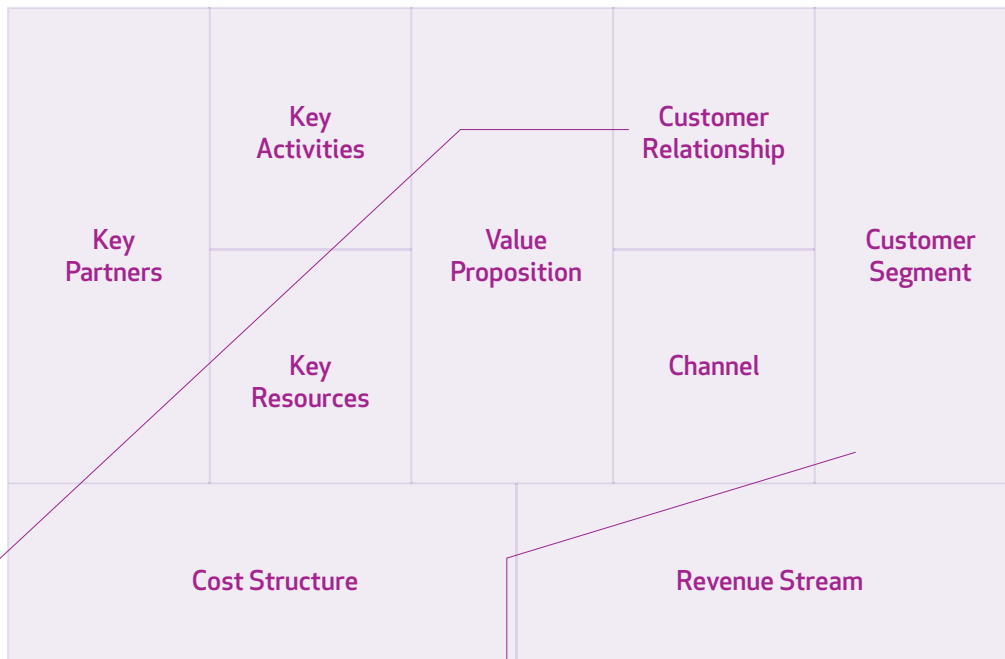
Potentially this is like an extra level of national insurance

Could almost be a National Insurance contribution for everyone?

Could GP consortia help fund it? Could keep people away from their services?

When we are young enough to plan, we don't want to

Model 4. Insurance



What if you quantify how much you could potentially spend on products over a lifetime – show consumers the potential savings

State provision will change over time with cuts and reforms, so people could potentially be encouraged out of the system to provide for themselves. But trust becomes very important – how to avoid miss selling etc?

Will the NHS generation want to pay? Already pay national insurance so will they see the benefits of paying a private company? Or is this for the type of people already using Bupa etc?

Could learn lessons from funeral planning?

Most people will only recognise the need for insurance at the point where they have become uninsurable or the premium would be unreasonable

Outlay is not necessarily that high but do people trust insurance companies enough to take up this sort of product.

The model still does not get round the earlier issue about people not knowing what exists or where to go for it.

The benefit of the model is that it would be well communicated because it would be used by well-respected brands who are used to promoting a product.

Insurance or assurance?

Range of potential products HUGE from commode > eALT

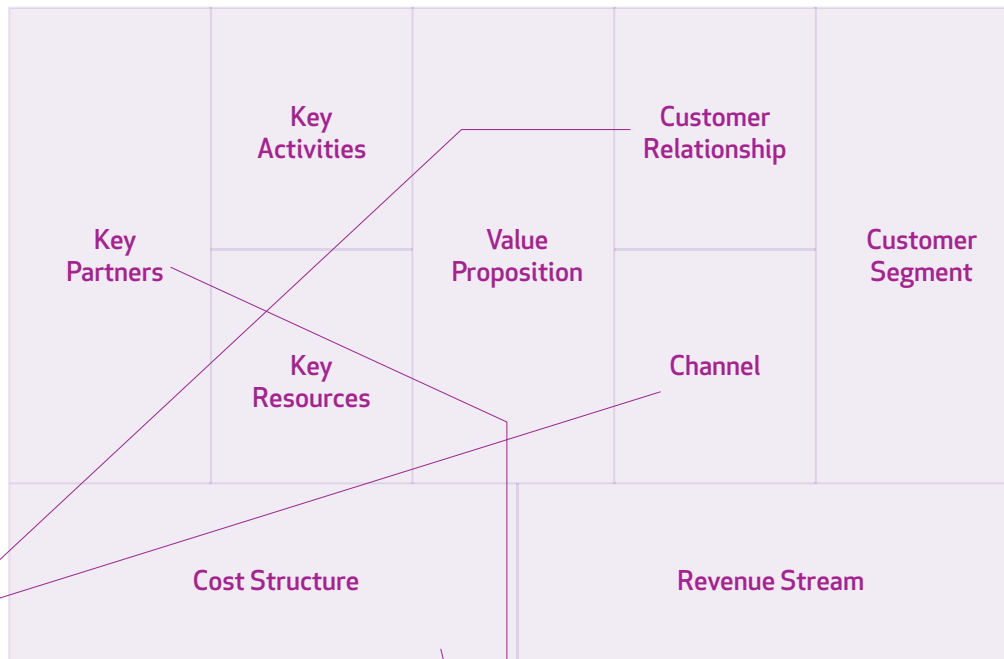
Retirement village model – adaptive and progressive levels of care

Children might want the company to pay out for their parents, but their parents might not want the products

Customer vs consumer expectations – decision making, children might want the insurance whereas their older parents do not

You could engage younger carers if it meant their parents could access the products

Model 4. Insurance



● Could learn lessons from funeral planning?

Like this model, but it may appeal to the wrong end of the market. The products are not big-ticket items, so those who can afford the insurance likely to be able to afford the products therefore don't need insurance. Those with less budget cannot afford either so still not reached

● Could be a good add-on for existing company e.g. Bupa

Is it too specific? Could it include care on a broader level, e.g. cleaner or care provisions, could cover costs

In terms of telehealth insurance companies should be interested.

Could be well-communicated through large company e.g. Bupa – needs the affiliation of a large brand

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The government could pump prime an advisory service.....

● Who has a stake?

Manufacturers – selling their products

● This isn't a business model for the market but could potentially fund it

Management fees and costs for this model would be HUGE

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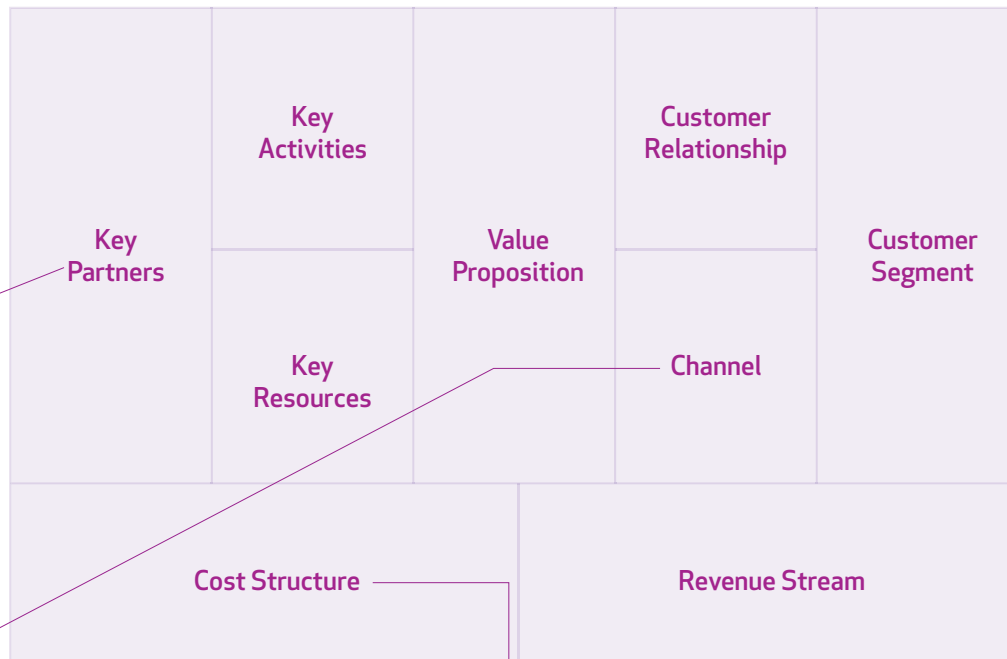
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This document has been produced as part of the COMODAL (Consumer Models for Assisted Living) project which is funded by the Technology Strategy Board as part of the Assisted Living Innovation Platform. The project is being led by the Health Design & Technology Institute (HDTI) at Coventry University in partnership with Age UK and Grandparents Plus, and supported by Years Ahead and the South East Health Technologies Alliance (SEHTA).

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