Identifying aggregated purchasing opportunities

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Abstract The New Zealand public health sector comprises 20 independent District Health Boards (DHBs), all of which face significant funding challenges. To mitigate these challenges, the New Zealand Government launched a National Procurement Service under the umbrella of healthAlliance (hA) to aggregate the purchasing of the DHBs across common categories to drive cost reductions. This paper examines the challenges faced and lessons learned as hA endeavoured to do so. It focuses on hA's pursuit of reliable baseline data, the importance of stakeholder engagement and the limits placed on aggregation by the need for variability and competitive tension. As hA's experience illustrates, understanding aggregated purchasing in a healthcare context creates the potential to achieve best value while delivering results aligned with customer expectations and clinical needs.

KEYWORDS: aggregated purchasing, procurement

INTRODUCTION: WHAT IS AGGREGATED PURCHASING?

Aggregated purchasing aims to reduce costs through volume commitments. Basic economic theory states that the price of an item will change in relation to the volume purchased. The more you buy the less you pay per single item. It makes sense for buyers with common interests to pool their buying power together and use their collective volumes to negotiate more favourable commercial terms than they could achieve independently. While the reality of aggregated purchasing is more complex than this would suggest, it is important to first understand the concept at this basic level.

WHO IS HEALTHALLIANCE?

In New Zealand there are 20 DHBs providing public health services. In July 2000, hA was created as a joint venture between two of these DHBs—Waitemata and Counties Manukau—to provide shared business services in the shape of procurement, supply chain management, IT, accounts payable and payroll. Ten years later two further DHBs—Northland and Auckland—joined healthAlliance to obtain the benefit of the shared services. Collectively, these four formed the Northern Region DHBs.

As a whole, New Zealand public health sector is facing significant funding challenges. This is in part due to the 20 independent DHBs largely managing their own affairs. The DHBs approach to procurement, in particular, lacked any high-level co-ordination and, accordingly, the suppliers capitalised through 'divide and conquer' tactics.

To mitigate funding challenges, the New Zealand Government is moving to reduce duplication and costs by providing national shared services. In line with this objective, hA's procurement team was asked to provide their procurement service to all 20 DHBs in July 2014. The intention was to aggregate the DHB's purchasing across common categories and make use of their combined influence as buyers to achieve economies of scale. Doing so would standardise processes, reduce costs and create efficiencies in order to free up time and money for front-line patient care.

THE IMPORTANCE OF DATA

When hA transitioned to a national purchasing service its objectives significantly expanded from generating value and savings for the Northern Region DHBs to providing procurement services and benefits to all 20 New Zealand DHBs. Such a transition cannot happen overnight. Rather, it requires a significant organisational change demanding new systems, processes, procedures and capabilities. In hA's case, a 1000-day plan was devised to chart how it would change the face of procurement in New Zealand's public health sector.

The initial stages of transformation involved ensuring the right staff were on board to deliver results, developing national processes in place of the existing regional ones, and recognising that each of the 20 DHBs had different computer systems and finding a way to accommodate this. The biggest obstacle, however, was around data. Identifying the greatest opportunities for aggregation was a major challenge in the early stages because each of the 20 DHBs had their own catalogues and their own ways of categorising and understanding products and services. As a result, it was very difficult to compare the DHBs spend data on a like-for-like basis. Moreover, because procurement was not a priority for these organisations, the data that did exist was often inaccurate and incomplete.

Without clean spend data, aggregation is very difficult. hA could not see trends and establish baselines in DHBs' purchasing, nor could it draw together common requirements across the DHBs and present those to the market in a clear and co-ordinated way. This problem is

common across many organisations because procurement has not previously had the high profile it is now developing. Moreover, it is important to note that suppliers are sensitive about sharing commercial data and concerned about weakening their own power in the market. As the suppliers generally benefit from decentralisation, they have little motivation to assist the aggregation process.

To effectively identify aggregated purchasing opportunities, it is necessary to convert diverse data into a common standard. In hA's case, the data structure environments of GS1, a global standards organisation, and the United Nations Standard Products and Services Code (UNSPSC) were utilised to achieve commonality. GS1, firstly, developed Global Trade Item Numbers (GTINs). These numbers uniquely identify trade items using a standard format and structure. Every item that is different from another possesses a unique number. hA undertook an extensive process to match the products and services within the DHB's master data with a GTIN. With a single format that allowed comparison on a like-for-like basis, the DHBs' disparate data could be aggregated and serve as a central point of truth. UNSPSC, secondly, is an international system of categorisation. Once the DHBs' data had been matched to GTINs, it could then be aligned with the UNSPSC data categorisation approach. UNSPSC allows spend on goods and services to be grouped in a logical and consistent manner. By reconciling the DHBs' master data with these international standards, it was possible to build up a picture of what the DHBs' spend looked like across categories, establish baselines and identify the greatest opportunity for aggregation.

An important taking from hA's transition to a national procurement service is that the investment to establish clean, coherent data should be made as early as possible. It is this data that provides the purchasing organisation information for baseline measurement. That information is the source for decision making, and it is the decision making that allows organisations to take their next strategic step.

STAKEHOLDER ENGAGEMENT

Even with clean baseline data, delivering savings through aggregation cannot be done in isolation. Rather, it can only be achieved through building positive, trusting partnerships with the customers. This can be a challenging exercise. In hA's case, the DHBs naturally had a sense of losing control when hA took over. Some of the smaller DHBs bought into national procurement with relative ease because they lacked the resources to conduct effective procurement independently. Some larger DHBs, however, maintain the perception that they may be able to do it better.

More important still are issues of reputational and clinical risk faced by the clinicians. As an example, one of the DHBs recently recruited a spinal surgeon from Canada to fill a role in their Spinal Unit. After making all necessary arrangements, the surgeon travelled to New Zealand ready to take up his new role. Upon arriving at the hospital, the surgeon discovered that the system of orthopaedic implants used at this hospital was different from the one he was familiar with in Canada. Unwilling to risk his professional reputation on products he did not know or trust, the surgeon turned around, hopped back on a plane and made his way back to Canada. The reality is that clinicians cannot risk using products that they are not comfortable with. If something were to go wrong with these products in the course of their practice, the clinicians would be personally responsible. Additionally, in emergency environments, clinicians need to know they can act quickly and rely on the products at hand.

The process of building strong, trusting relationships, therefore, has to involve more than just meeting the stakeholders if it is to

be effective. The role of purchasing must be recognised as central to the organisations business activities and the stakeholder's opinions must be carefully considered. If this is achieved, then stakeholders will be far more positively engaged in the procurement process. Accordingly, hA aims to keep the stakeholders informed at every step of the process and maintain appropriate channels for them to connect with hA when they have a problem. This gives the DHBs a feeling of control while hA drives the process from behind. Moreover, it makes it more likely that the DHBs will be happy with the outcome.

hA ran a procurement process to replace a DHB's ageing fleet of anaesthetic workstations. The approach taken in this instance demonstrates one solution to the problem of clinical engagement. The DHB had identified the need for new high-end anaesthetic workstations and were particularly interested in emerging technology around the auto-control of anaesthetic gases. By automatically controlling the gas flow, this technology minimises the use of the consumable as well as the risk of human error. It was believed an investment in this technology would drive down the use of volatile anaesthetics and, accordingly, the DHB would save money on gas. hA entered into negotiations with the two primary suppliers in the New Zealand market to obtain the best available deal. This involved engaging with important stakeholders to build clinical requirements which could be taken to the suppliers.

It soon became clear, however, that obtaining clinical engagement was a problem. Many of the anaesthetists within the DHB were wed to their existing equipment and resistant to change. Moreover, there existed a fear of the unknown in relation to the auto-control technology. The anaesthetists were generally reluctant to use technology they were not familiar with. Accordingly, hA struggled to obtain clinical buy-in to change the ageing fleet.

Like any procurement process, the support and leadership of the stakeholders is essential. Without it, the replacement of the anaesthetic workstations stalled. The solution hA implemented in these circumstances was to use senior anaesthetists who were open to change as hA's primary point of contact and to champion the project to all the other clinicians. These senior anaesthetists attended meetings with the suppliers to communicate the DHBs' message and advocated for the benefits of the project. Accordingly, hA did not have to work to get every individual clinician on board. Instead, the role of hA in the procurement was facilitative. They ran the process, documented the benefits and fed this information back to the lead anaesthetists. The advocacy that came from the senior anaesthetists had significantly more influence than it did coming from a procurement specialist. Ultimately, the DHB replaced their anaesthetic workstations with new equipment that contained the auto-control technology.

hA's experience has also shown that the benefits of aggregated purchasing do not come simply through a procurement person negotiating a good deal. It needs to be acknowledged that the negotiation process only leads to hypothetical savings. The *real* savings come when the purchaser supports the customer implement that deal. Additionally, it is important to note that in New Zealand, there is no mandate for the DHBs to purchase from the contracts hA sets up on their behalf. If the DHB continues to purchase as they always have, actual savings will be lost. This can be prevented by supporting the customer with the information they need for changing their purchasing behaviour. One method hA uses to achieve this is implementation packs which are sent to the DHBs once a deal has been struck. These contain all the information the DHB needs to ensure the deal is correctly implemented, including projected savings, special contract conditions and risks. hA also employs implementation

managers who are based at a DHB. Although these managers are employed by hA, they are effectively DHB resources who help the DHB turn the negotiated deal into a realised benefit. This role distinct to the role of the procurement specialists who have to consider the needs of all 20 DHBs.

Ultimately, effective stakeholder engagement is about more than just good relations. It is about building trust, value and obtaining an endorsement to act for the customer. Once this is achieved, the suppliers who previously profited at the expense of the separate purchasers are no longer able to divide and conquer when faced with a united front.

ONE SIZE DOES NOT FIT ALL

Centralised purchasing can work well at identifying opportunities for aggregation and cost saving, but comes with the challenge of ensuring the needs and wants of the different customers are met. Each customer will have specific requirements that must be met in any new deal that comes from aggregation. As noted earlier, clinicians can be closely wed to the products and will seek workarounds to continue using their preferred products if alternatives are imposed on them. A balance must be achieved between providing the customers with a level of variety to ensure all needs are met and consolidating supply to leverage volumes for commercial benefit.

One instance where variability was essential for hA was during the procurement process to establish supply contracts for implantable cardioverter defibrillators (ICDs) and pacemakers. In the New Zealand market, there were four main suppliers of ICDs and pacemakers who had the capacity to meet the DHBs' requirements. The DHBs each had their own contracts with these four suppliers with varying terms and pricing. These agreements covered not only the purchase of equipment, but also the after-sale services, including home monitoring and clinical support. Broadly speaking, the DHBs split their spend equally across the four incumbent suppliers.

While aggregation is at the core of hA's mandate, it would not have been suitable in these circumstances to place all the DHB's spend with the most competitive supplier to achieve the best economies of scale. If hA had contracted with just a single supplier, then those patients who used a different supplier's product would lose the support services that were essential to their well-being. The clinicians were very concerned that hA would force certain suppliers out of the market by aggregating the DHBs purchasing heedlessly. Accordingly, hA's brief from the DHBs was to ensure that all four incumbent suppliers remained in the market and were willing to provide both products and support to the DHBs and their patients.

The question, then, was how can a purchaser achieve cost savings if it cannot aggregate and leverage spend with fewer suppliers? The solution was to negotiate an arrangement whereby there were two major suppliers and two minor suppliers. The DHBs would leverage their volumes with the two major suppliers in order to achieve cost savings while still providing a lower level of spend to the minor suppliers to keep them in the market. Moreover, the contracts that were negotiated with each provider were reviewed on an annual basis. The minor players had an incentive to stay competitive because next year, they could become a major provider.

hA requested pricing from the four suppliers on a volume share basis. The suppliers showed the level of savings the DHBs could achieve depending on the proportion of their spend they committed to each supplier. A spreadsheet was made which allowed the DHBs to see for themselves the different levels of saving they could achieve. As each of the DHBs had their own demographics, clinical preferences and cases, they knew what suppliers they needed on board and selected the supplier mix that best suited their requirements.

A procurement process aimed at aggregating spend must ensure the needs of customers are met. This arrangement provided significant cost savings to the DHBs, which was reinvested in ICDs and pacemakers so that more patients could be serviced. More importantly, the DHBs maintained the ability to purchase all the same brands they had previously been using, and the same four suppliers were retained in the market to continue providing their services to the patients. The deal provided the variability needed to meet the needs of the DHBs without compromise.

BIGGER IS NOT ALWAYS BETTER

The developments in aggregated purchasing in the New Zealand health sector have raised questions about the extent to which we should pool our requirements and let fewer and larger contracts. As noted earlier, basic economic theory claims that there is money to be saved through aggregated spend—the bigger the spend, the bigger the discount. This theory, however, isn't entirely accurate. When an organisation's spend becomes too large, the level of discount can decrease. If, for example, you take $100,000 worth of spend to market you may get a 10 per cent discount. The supplier can afford to lose $10,000 in a deal. It does not necessarily follow, however, that if you take $1,000,000 to market, that the supplier will still provide a 10 per cent discount. The supplier may not be able to afford to lose $100,000 because of the cash contributions on their part. Aggregated purchasing is therefore not a straight forward process of bundling a volume of goods together to take to market to get the best price. Instead, it is about bundling *economic order quantities* together and taking these to market in order to obtain the greatest level of savings in the circumstances.

It is also common to think that aggregated purchasing means a single source of supply. This is not necessarily true. Instead, aggregated purchasing is less about reducing suppliers and more about managing your organisation's proportion of spend in the market. It may be that the best outcome is not to take all your spend to one supplier to leverage volumes, but rather to have multiple suppliers, splitting the spend between them to keep them competitive. By doing so, you can effectively drive the market price down through competitive tension. Extensive aggregation across the health sector can distort markets by developing a situation where there are very few suppliers operating, and thus losing many of the potential benefits of aggregation.

In 2014 hA identified an aggregation opportunity around the supply and installation of Linear Accelerators (LINACS) used for radiation therapy for cancer patients. At the time, New Zealand had six radiation oncology centres, and each DHB would conduct an independent procurement process every time one of their LINACS needed to be replaced. Rather than go to the market for every replacement, it made sense for the DHBs to aggregate their requirements and establish a common supply agreement which met their collective needs.

At the same time, it was important to maintain competitive tension. A decision to lump the DHBs' spend with a single supplier could have provided significant savings in the short term. Long term, however, the unsuccessful suppliers may have wound up their business in New Zealand, deeming it unproductive. Without competition, the remaining supplier would have significantly more power to dictate the price of its equipment. Such an outcome would ultimately be counterproductive to the whole exercise. Maintaining balance in the market was therefore an essential outcome of any procurement process in this space.

The approach taken in this instance was to establish a panel of suppliers for the supply of LINACS. The intention was that hA would advertise to the market the intention to procure a certain number LINACS, and the vendors would provide pricing to win

most, if not all, of that business. Based on the suppliers' responses, a panel of pre-approved suppliers who agree to the terms and conditions for supply could be established. Once a panel was established, DHB's would not need to run their own procurement process for individual opportunities. Instead, they could engage directly with the panel suppliers, using their provided pricing as a starting point for further discussions. This is called secondary procurement.

The panel does not commit any DHB to procure any equipment within any timeframe. What it does is give the DHBs the freedom to make arrangements with the panel suppliers suitable to their specific requirements and the market conditions. Options include negotiating directly with a preferred supplier and selecting the lowest price available or obtaining competitive quotes from some or all of the panel suppliers and awarding the opportunity to the supplier who has the right level of expertise and can offer the best value for money. Alternatively, the DHBs could award opportunities to suppliers on the panel in turn. This could involve fixing an upper limit of work that can be awarded to each supplier and award opportunities on a rotational basis. When a supplier reaches the upper limit, the DHB chooses the next supplier from the panel.

The panel established for the supply of LINACS verified which suppliers were capable of delivering the requirements and obtained agreement in advance with each supplier the terms and conditions of supply. With the panel in place, the DHBs no longer had to run their own procurement processes or contract independently. At the same time, competitive tension was maintained by having multiple suppliers set up in the market. Moreover, as the specifications could be tailored to the DHB at the time of purchase, it provided for variability, which is a central consideration of aggregated purchasing.

An essential point of this paper is that procurement strategy and sourcing decisions to seek aggregated supply should be taken on a case by case basis. The advantages and disadvantages of each option should be assessed in the light of the individual requirement, the capability and capacity of the organisation buying and the features of the commercial marketplace. It may be important, for example, to ensure that a competitive supply market is safeguarded for the future rather than achieve maximum cost savings in the short term.

CONCLUSION

In summary, hA's vision around aggregated purchasing centres on achieving best value and delivering results aligned with customer expectations and clinical needs. Clean, coherent baseline data is central to effective aggregation because without it, the purchasing organisation cannot have effective oversight of their customers' spend nor draw together common requirements to present to the market. Aggregation should not be undertaken indiscriminately. In the healthcare sector, there is often a need for variability to meet the diverse needs of patients and the preferences of clinicians. A failure to account for these will result in negotiated savings being lost through leakage. Moreover, decisions to aggregate should be taken on a case by case basis, steered by considerations of economic order quantities and competitive tension. In the end, every dollar saved in the health sector allows more funding to be provided for health initiatives. Aggregating purchasing can be an effective way of achieving such savings if managed with foresight and attention.