DEMAND MANAGEMENT AND STOCK CONTROL IN THE LICENSED TRADE; IS IT SO SIMPLE?

Neil Towers, MIOM and Dr John Pratten, Manchester Metropolitan University

ABSTRACT

There are about 60,000 public houses in the UK and more than half of these operate as small businesses. By 1990 businesses with less than 200 employees accounted for nearly a third of total UK employment [6] with the consequential effect that supply of goods from supplier through producer to customer using small businesses has become more significant over time. While the large brewers operate their houses by employing well trained managers and other staff, most of the proprietors of the small businesses have little or no formal training themselves, and have minimal knowledge of effective stock control. Moreover, they are unaware of any need for such knowledge. This article uses the comparative case study approach to illustrate demand management and stock control in a leased public house run as a small business, and a brewery managed public house.

INTRODUCTION

A strong commitment to providing a high level of service to customers has generally been seen as a central feature to managing the operation of a supply chain. While businesses have dealt with moving and storing goods in disparate ways and under a number of different specialised activities, nowhere is the influence of customer service more acute than within the retail sector, and particularly within the licensed trade. The publican is at the mercy of irrational and impulsive consumer choice which must be supported by responsive stock controls and information systems to service customer demand.

Few studies have investigated the operational controls associated with the supply of goods and services, or addressed the need for purchasing or stock controls and their associated disciplines within the context of the small business in a supply chain between the brewer, the wholesaler and the public house. The recognition of the existence of any of these activities is central to developing a planning and control process that communicates relevant information to support the operations activity of the enterprise [2].

MANAGING DEMAND FOR A PUBLIC HOUSE

Anticipating and managing demand from customers at the public house requires detailed attention to stock control throughout the supply chain, particularly with an ever-increasing and changing range of products heavily influenced by marketing campaigns. The range on offer to the consumer covers real ale with a short shelf life to keg and bottled beers, wines and spirits with longer shelf life but prone to sudden changes in customer choice. The down side to poor demand management is high residual stock, cash tied up and costly discounting to move slow moving products. The up side of stock holding is to offer consumers a wide range of products to meet their fickle requirements. This trade-off is central to an effective operation of the public house.

Understanding the control processes that exist linking the brewer/wholesaler and public house, and then to the end customer, or consumer for movement of material and information is an essential activity for any public house. For each link in the network between individual customers and suppliers there exists a relationship which aims to deliver precisely to their customer's requirements and to the required service level. For the publican this requires an investment in stock in anticipation of actual customer demand within the range of different products offered for sale. Each customer will have different demands that are satisfied by the publican holding the correct mix of stock of different brands to fulfil those customers' expectations. Demand management and stock holding is then repeated upstream throughout the supply network of wholesaler and brewer.

Small firms formulate their own particular strategies and the supply chain focus must adapt to their particular needs. They can use the supply chain as a performance tool that can be developed in accordance with the key components of the small firm [1]. Developing an internal planning and control mechanism for the effective operation of the small business is essential to improving the performance of the supply chain. A key is the need for integrated and not interfacing systems of control [5] as there is an inseparable dependency for each individual business within the chain to operate collectively to service the end consumer. The crucial element of the relationship is simplicity of operation.

THE STRUCTURE OF THE PUBLIC HOUSE TRADE

Traditionally, the breweries owned most of the public houses, and either installed managers, who were simply employees of the breweries, or allowed the pubs to be run by tenants or leaseholders. Ownership was retained by the breweries, which charged rent for the use of their property, and controlled the types of stock that could be sold. Indeed, the breweries themselves often supplied the stock, but the tenants and lease-holders retained the profits. There are also free houses, which are owned outright by the individual licensees.

Currently, about 35% of the public houses in the UK are free houses, but some are owned by chains that are unaffiliated to the brewers, so it does not mean that all are small businesses. Lease and tenant holders run 42% of pubs and the remainder are managed houses owned by breweries and corporate chains.

The managed houses are part of a major business enterprise, and so their financial controls have been devised to effect economies of scale. Managers may find that their tills are directly connected to head office, so that the sales of particular products are monitored. Alternatively, they have to make regular and detailed reports on the sales of each product, so that head office is able to monitor trends and effect the appropriate delivery of stock. Tenants, lease holders and free traders have no similar level of support.

STOCK CONTROL FOR EFFECTIVE DEMAND MANAGEMENT

A key requirement in any operation is to distinguish the particular business environment that is applicable for the product or service that is being supplied by the operation. For most public house operations the contribution that material costs have on the total cost of the operation is between a half and two-thirds of the total. The key to successful management of the operation is to focus on the accuracy of the forecasted sales and the benefits of servicing the customer from the cost of cash tied up in stock. Using techniques to plan in the short term and adjust the replenishment of consumed stock on a day-to-day basis is critical to effective purchasing and cash flow. Based on previous and future sales activity of the operation, the stock control system should support the public house's need to satisfy the customer's orders on demand.

Melnyk [3] identify four major guiding principles to effective short term planning which are People, Accountability (and discipline), and Capacity and Systems. They note that the information system will only succeed if it is user friendly to the operating detail supplied by the individual. The suggested solutions offered by the short term planning system are to be viewed as recommendations and not

directives since the responsibility for the actions of the stock control system are retained by the individual. The ability to allow discretionary decision making as part of the overall planning activity is vital to manage the operation effectively. 15 years on and this is arguably more apt given a wider choice of brands on offer in the public house and rapidly changing consumer behaviour having a more pronounced effect on demand management.

With a small business with its limited access to resources understanding the decision process involved in stock management can save unnecessary effort being wasted in stocking excessive amounts of slow moving lines and not holding enough of the more popular brands. Research published in this area is limited, but a three year longitudinal study published by Towers [7] showed that introducing too sophisticated computer and manual systems clouded the need to have clearly identified disciplines for controlling store rooms and providing easily compiled management information from which to take corrective action.

CASE STUDY METHODOLOGY

The illustrative case study was undertaken in a small market town which has approximately 29 pubs but to date it had seen none of the investment in branded pubs or urban or city centre style super-pubs. The town has a population of approximately 15,000, has some light industry and acts as a service centre for the surrounding largely agricultural area and as a residential area centre for large urban / industrial areas. The case study approach was chosen as it allows the phenomenon to be examined in its social context, and allows the researcher to be able to get close to the participants and to be sensitive to the holistic nature of demand management or stock control activities [4]. The research investigated the supply of spirits, wines, cordials, soft drinks and 'alcopops' using semi-structured interviews and participant observation of a free trade wholesaler, an independent leased public house run as a small business, and a national brewery managed public house.

THE WHOLESALER

Business Activity

The depot serviced 326 current customer accounts with an average sale of £350-£450 per customer per week, offering an all-week 7-day delivery. The depot delivered to a radius of 50 miles from Stoke-on-Trent using a fleet of 9 delivery vehicles. This depot was part of a national UK group network of 8 depots. The stock holding policy was stated as 21 days for main line core items within the whole range. This is aggregated from a 10-day historical customer sales profile, regenerated each week. Because of the short shelf life of real ale stock holding was limited to 7 days.

The wholesaler provided two levels of delivery service depending on distance from the depot, shown below.

Wholesale depot delivery service levels

Distance from depot	latest order time for same day delivery
within 4 miles	11.30am
over 4 miles	9.30am

Demand Management

The customer accounts are divided between three customer sales managers who each have a team of telesales to support them. Demand management and stock level knowledge were recognised as the main shortcomings of their customers. The wholesaler had been able to exploit these weaknesses into an added value activity for the publican through the telesales team making regular weekly contacts. The purpose of the regular telephone call was two fold; firstly to act as a trigger and a discipline for the publican to have an up to date stock level prior to the call and secondly to manage its marketing relationships with the aim of retaining business through customer loyalty. Given the wholesaler would have the previous ten week sales to the customer they would be able to evaluate recent trends in demand across the individual range of products specific to each outlet and suggest possible alternatives to the publican. Having a close relationship with their customers the telesales team would often make two phone calls, the first to trigger the publican to establish current stock levels and the second within an hour to discuss the order content. Any day to day fluctuations in demand from customers could normally be taken up by the stocking policy of the wholesaler. Large changes in demand within the region of the Stoke-on-Trent depot would be accommodated by reallocation of stock between depots in the national network. Out of stock situations at the wholesaler were said to be rare.

AN INDEPENDENT SMALL BUSINESS LEASED PUBLIC HOUSE

Business Activity

The public house is based on the edge of the town centre and employs three full time members of staff together with the equivalent of four part time casual employees. The owner has outright management control of the business. The conditions of the lease require that beers, lagers and stouts are purchased from a specific supplier, but spirits, wines, cordials, soft drinks and alcopops can be obtained from any source. These products are the subject of this case study and were the most prone to changes in customer demand. The customer clientele varies quite considerably through the week but is generally aged between 18 to mid 30 years old with an increasing proportion of the over 40 years of age.

Demand Management

There was no formal stock management system and all records were hand written. Each week a formal manual stock check was made in the storeroom and in the bar area of the 51 current different product lines. The publican used the results of the stock check, then applied her knowledge and intuition of customers' past demand, together with any local events such as festivals to determine the replenishment requirements from the wholesaler. The weekly order was then given to the wholesaler for delivery the following day. An important element in establishing future demand was the forecasted weather for the forthcoming week which in itself included a high degree of uncertainty. Sales of spirits, wines and soft drinks were seen to be consistent and level, divided between fast and slow moving lines within each range. The storeroom stock acted as the safety stock, the replenishment lead time and delivery service accommodated any major changes in the pattern of demand. 'Alcopops' presented a different scenario because of the high influence of week-to-week fashion changes and the younger age of the customers. There was not deemed to be a high level of brand loyalty and substitution of alternative brands was readily accepted. Hence the publican assessed the stock levels for each brand as well as the whole category of alcopops, in the knowledge that it was unlikely that fashion changes would create unwanted residual stock.

In setting the stock levels the publican sought to source spirits, wines, cordials, soft drinks and alcopops from a local supplier that provided a 7-day a week delivery service at no extra cost. There was limited storeroom space and it was of paramount importance to have a responsive supplier who could meet daily and weekly requests to service the changing demands of the business. This allowed the publican to hold minimum amounts of stock and therefore maximised cash flow. The wholesaler depot was based 14 miles from the public house and stock outs which affected customer service were rare. The last occurrence was in early autumn, 9 months prior to this study when a short spell of un-typically warm weather over a weekend created

abnormal demand that could not be serviced from the current arrangements. Normal service was resumed within 24 hours. The business had developed into a profitable operation which had recently self financed a development programme.

A BREWERY MANAGED PUBLIC HOUSE

Business Activity

This public house is situated close to the town centre and employs four full time staff and the equivalent of ten part time staff. The public house is one of a number of similar local pubs owned by a large national brewer. The pub manager reports to the area manager and is tasked to deliver a targeted gross profit from the business. The brewery dictates the complete range of products to be sold from a portfolio of beers, lagers, ciders, wines, spirits, 'alcopops' and soft drinks. The landlord is not allowed to purchase any product other than that specified by the brewery and currently stocks a range of 57 main product lines. The customer clientele is predominantly in the age range 18 to mid-30 years old but is supplemented by older aged customers during the week. There was not seen to be particular brand loyalty within the range of available products.

Demand Management

The public house is electronically linked through the sales till directly to the brewery. The system, which can potentially create weekly suggested replenishment orders is not currently in use and the stock ordering is carried out using only a simple manual method. The manager undertakes a weekly stock-take using a written pro forma and determines the weekly order using an arbitrary policy of a minimum stock level trigger of 14 to 19 days based on sell-by date. The order is given over the telephone to a central telesales department within the brewery that is then processed to create the normal weekly delivery. The telesales staff did not discuss historical trend information to assist the manager to make more informed reorder decisions.

To cover for a shortfall in supply there was the availability of an additional emergency mid week delivery, but this attracted a premium charge for the manager of the public house. However, the manager did have the option of sourcing short term carry over volumes from other brewery managed public houses within their Area at no extra cost other than those associated with collection.

The manager had access to enough storeroom space to allow him to set approximately two week stock levels across all the product range on offer. The location of the public house created sufficient demand from customers, particularly at weekends where they followed a predictable pattern within the town centre circuit, generating an overall average turnover of stock of approximately 10 days. As part of forecasting future longer term demand fluctuations the manager would identify forthcoming local and national sporting events, as well as local events such as the annual town Jazz festival. Local knowledge played a key part in ensuring future abnormal fluctuations were accommodated in the ordering process and within the last two years there had been no stock outs. The managed house had consistently met and often exceeded its gross profit objective.

CONCLUDING REMARKS

The investigation identified that there were a complex array of influences on the demand within the range of products offered by a public house. The profile of customers and their associated purchasing behaviour created many problems for the publicans managing their operation, but the constraints of a national product range or a tied agreement had not adversely affected performance.

Despite these issues the basis of stock management in both of these cases were simple manual pro forma systems. Even with the option of an integrated electronic system, the simple manual system was chosen as being the most effective. For the leased public house the response time from the wholesale was crucial to ensure continuity of supply whilst in the managed public house this was accomplished by a larger storeroom safety stock, coupled to reallocating stock at the area level of the brewery's managed houses. Service provided by the supplying wholesaler, whether independent or integrated facilitated the replenishment process.

Despite the potential for high fluctuations in demand caused by such influences as national product marketing campaigns, buyer behaviour and fashion, all of which created a constantly expanding and changing product range the base line stock control most favoured was a system based on intuition and personal judgement. The starting point to ensuring that the weekly replenishment order was accurate was a simple yet beautiful technique of the time honoured manual system. Who said the day of the quill and the scroll is numbered!!

Our intention is to extend this research into all public houses within the chosen town using quantitative methods. The findings have surprised us in our perception that high street retailers, although depending heavily on local knowledge and effective supply systems for managing demand revert to crude manual techniques for assessing their greatest asset of stock and its associated cash flow.

Acknowledgement

The authors would like to thank Central Drinks of Stoke-on-Trent, and the Licensees of the Bowling Green and the White Horse public houses in Nantwich for their support and co-operation.

REFERENCES

[1] Halley, A. and Guilhon, A. "Logistics Behaviour of Small Enterprises: Performance, Strategy & Definition", *International Journal of Physical Distribution & Logistics 1997*.

[2] Jordan et al. *"Production Activity Control for Small Manufacturing Enterprises"*, In: Szelke, E and Kerr, R.(ed) IFIP International Workshop on Knowledge based Reactive Scheduling, Athens, 1993, Elsevier Science B.V., pp 29-38, 1994.

[3] Melnyk, S. et al *"Shop Floor Control"* Homewood, IL, Dow Jones, 1985.

[4] O'Donnell, A. and Cummins, D. "The Use of Qualitative Methods to Research Networking in SME's", *Qualitative Market Research; An International Journal*, (2) 2 pp 82-91, 1999.

[5] Stevens, G. "Integrating the Supply Chain" *International Journal of Purchasing and Materials Management*, 19, (8) pp 3-8, 1989.

[6] Storey, D. *"Understanding the Small Business Sector"*. Routledge, 1994.

[7] Towers, N.S. "Production Activity Control for Small and Medium Sized Enterprises with less than 500 Employees" *Control, Institute of Operations Management*, 25, (10), pp 18 -20, 1999.

About the authors

Neil Towers MIOM is a Senior Lecturer in Production Management at the Crewe campus of Manchester Metropolitan University. He is an active member of the Institute, participating in the syllabus review initiatives. He has 15 years manufacturing experience in operations and materials management at Lucas Industries, GEC, BTR and Foden Trucks.

In the early 1990's he successfully ran his own Consultancy Company and now researches in the areas of small businesses and the supply chain.

Dr John Pratten is a Principal Lecturer at the Crewe campus of Manchester Metropolitan University. He has published numerous articles and several books on a variety of topics and has extensive experience in the areas of small businesses and the business environment.