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The effects of Supply Chain Management (SCM) activities and their impact upon festival management and the customer experience

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Introduction

As the number of festivals and the need to provide more satisfying customer experiences continue to grow, the challenges faced by festival managers have become more complicated than ever. The demand to reduce costs and maintain quality, while dealing with the increasingly complex health & safety, sustainability, regulatory and technological landscape; means that festival organisers are becoming progressively more reliant on their inter-organisational/delivery partners to sustain and improve their on-going operational activity. These developments in festival delivery reflect how the competitive environment has changed. There has been a shift from organisations acting more in isolation, competing through strong brands and marketing budgets to competitive practices that actively involve all the organisations who provide goods and services in a particular supply chain (Christopher 2016). Supply Chain Management (SCM) provides a new dimension to the earlier models of competition, as collective co-operation can lead to the provision of superior value to

customers. This chapter will offer insights into how the effective and efficient management of SCM carries additional benefits to festival delivery.

All of the organisations in a festival supply chain need to externally enhance information sharing and internally reduce differences between departments (Elrod et al. 2013; Aloini et al. 2015). This should be achieved not only from how festival managers maximise their own resources, but also in respect to how they manage the supply chain they are engaged in.

Therefore, the competitive advantage achieved through effective and efficient SCM can only be achieved when the supply chain is clearly understood and managed well.

Although there has been substantial research on the relationship between event organisers, clients and suppliers in the events industry (Ritchie 1984; Allen et al. 2008; Emery 2010), this has tended to focus on stakeholder management (Ritchie 1984; Reid and Arcodia 2002; Arcodia and Reid 2005; Getz 2007; Chen 2011), in which a single or small number of direct suppliers are considered, or on specific supply related issues within logistics (Bowdin et al. 2011; Getz 2012; Shone and Parry 2013). A SCM perspective is prevalent in a number of different industry areas (Croom 2000), but the use of this more holistic perspective that this chapter advocates is thought to be very limited in festival management.

This chapter provides novel insights by investigating the application of SCM concepts and theories in a festival management context and asks whether it is possible to derive any insights for practice and theory that might improve the overall festival experience for festival attendees and suppliers alike. Taking a SCM perspective on the challenges and issues that festival organisers face, this chapter uses a focussed case study to make two contributions to the festival and event studies literature. Firstly, the study illustrates the complexity and multiplicity of supply chains in the festival industry and highlights the reliance on trust, customer visibility and communication within the overall supply chain. Secondly, the chapter applies two models (theories) from the mainstream SCM literature, namely the Bullwhip Effect and the Kraljic's Purchasing Portfolio Model to reveal the complex interactions

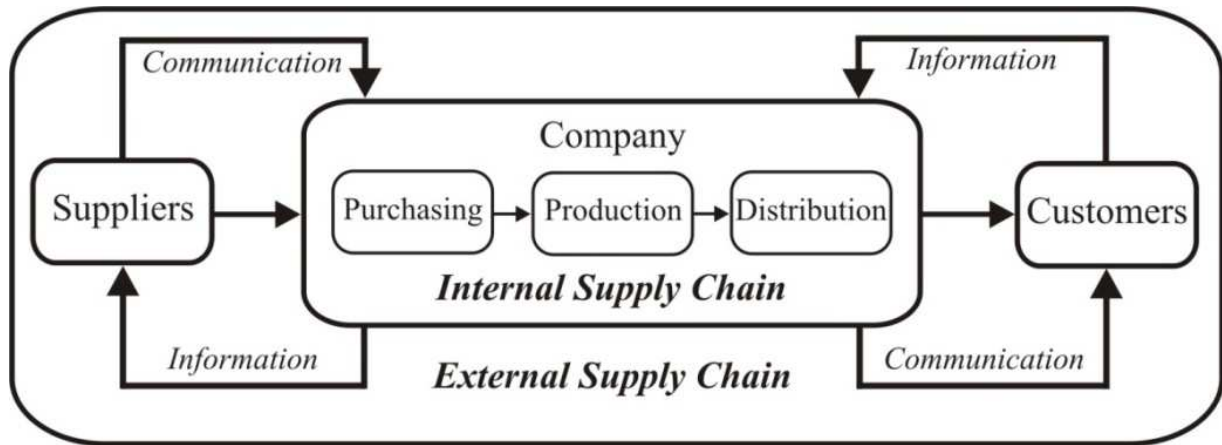
between individual organisations in the supply chain. The main concept behind the Bullwhip Effect is the increasing swings in purchasing in response to shifts in customer demand as one moves further upstream in the supply chain (Lee et al. 2004; Okada et al. 2017) while the purpose of Kraljic's Purchasing Portfolio Model is to help purchasers maximise supply, security and reduce costs by making the most of their purchasing power and adopting purchasing practices that fit the goods and services they are buying (Padhi et al. 2012; Grefrath et al. 2017).

These models can illustrate the different pressure zones that can be created by poorly managed information flows; resulting in the adoption of inappropriate decision making. The main benefit to practice created when each organisation considers the other organisations involved in the festival supply chain is that operational activity is more effective and efficient. By adopting these approaches, this chapter argues that improved outcomes can be achieved that benefit everyone within the festival supply chain including; the audience's satisfaction, superior health & safety conditions, improved communication both up and down the supply chain and improved visibility of all those involved.

Overview of SCM in festival management

There have been a number of different areas that have contributed to the current research on SCM; e.g. purchasing, logistics, marketing, organisational behaviour, strategic management and economic development (Croom 2000). To provide some context to the conceptual perspective, a supply chain is the journey of goods and services, from a raw product to the end user (in this case the festival audience). *Figure 1.* provides an example of a supply chain taken from a 'traditional' SCM setting in the manufacturing sector:

Figure. 1: Simple diagram of activities and firms in a supply chain



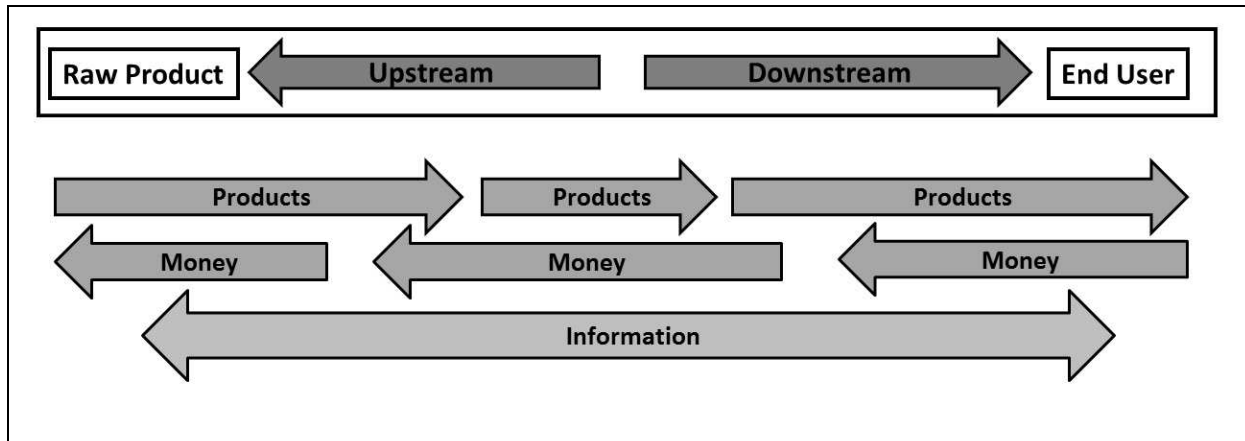
Source: Bratić, D. (2011). "Achieving a Competitive Advantage by SCM." IBIMA Business

Review: 1-13.

Of course, the representation of any supply chain will look different from each organisation's perspective, since management of each organisation is likely to see its own organisation as the focal organisation and consequently will view its supply chain position and structure differently (Lambert and Pohlen. 2001).

SCM is maintained through flows of money, information and products or services that move multi-directionally within the supply chain. These can move either upstream (towards the supply base) or downstream (towards the customer/end user). Generally, money flows upstream as it is introduced into the supply chain by the end user (by paying for tickets) while products or services flow downstream and back towards the customer to satisfy their requirements (e.g. the experience, live performance etc.) as shown in *Figure 2*.

Figure 2: Multi-directional flow within a supply chain



Source: Ryan & Kelly 2017.

Monczka and Morgan (1997) suggest integrated SCM concerns moving from the external customer and then managing all the processes that are needed to provide the customer with value (or perceived value) in a horizontal way. In other words, information flows up and down the supply chain in the form of order information, new product information and demand etc. (Slack 2009). Indeed, one of the key areas for co-ordinating amongst supply chain members is the management of information flows (Lee et al. 2004). There are exceptions to this as products in the process can be returned, money is often refunded and goods can be recycled. More sophisticated versions introduce concepts of value and trust (Christopher 1992; Ying and Xiaolin 2008; Oosterhuis et al. 2012) that is created between organisations within the supply chain.

Much of the work on SCM has its roots in manufacturing and production, with a more recent turn towards service industries and therefore it is not surprising that the SCM perspective is relatively underdeveloped in the festival and events field. Much of the literature that exists today focuses more on sustainability (Case 2013), supplies (Goldblatt 2008; Rutherford-Silvers 2012), suppliers (Ferdinand and Kitchin 2012; Rogers 2013; Daniels 2014), but not actual overall supply chain activities. The key characteristics of a festival supply chain show that a collection of diverse companies and individuals need to connect with each other to

provide goods or services to a festival to ensure a satisfactory experience for the end user. Considering the importance of SCM in the delivery of all events, it is surprising to note its virtual non-existence in events education today (Ryan 2016). Festivals by nature are a coming together of numerous suppliers and therefore festival managers are becoming increasingly reliant on the performance of their suppliers within the supply chain. The study of SCM and events management is therefore all the more important. It is against this backdrop that a number of challenges to the festival supply chain exist and to which this chapter aims to address.

Festival suppliers are faced with an increasing pressure to reduce out-going costs in an environment that is over-reliant on one source of income (Presenza and Iocca 2012). The demand for more cost-effective festivals and events has become important either because of increased national and international competition (Calvin 2012), increasing expenditures and requirement for more specialised technology (Robertson 2015) or the increase in complex legislation and regulation such as health & safety standards and environmental legislation (Arnott and Freire 2010; Lee et al. 2010; Markwell and Tomsen 2010; Tandon et al. 2012).

Basu et al. (2013) suggest the key challenges associated with events develop around the management of risk, resources, operations planning and stakeholder engagement. In light of these impacts and the actual nature of how a festival is brought together, it is now very unusual for festival organisers to perform all aspects of productive activity themselves (i.e. be fully vertically integrated).

The difficulties that festival managers experience when sourcing and dealing with suppliers has been discussed fairly widely (Reid and Arcodia 2002; Tum et al. 2006; Fields and Stansbie 2007; Yeoman et al. 2007; Bowdin et al. 2011; Shone and Parry 2013). These include the need to obtain cost effective goods and services balanced against quality of product, the hire, make or buy decisions such as in-house or outsourcing production or service supply and services that go towards avoiding tensions between participant stakeholder groups.

When tensions are experienced between participant stakeholders and poor management of suppliers, the knock on effect can lead to a number of complications which impact on the event itself. This can include event cancellation, programme reduction or quality problems (Getz 2012 p277). This chapter considers these issues and seeks to understand if a study of the wider supply chain can provide any insights into how these problems occur.

Methods

This chapter uses a single in-depth case study, which involved interviews with multiple individuals and organisations in a festival supply chain. The relatively limited amount of research into SCM in festival and events management meant that empirical research was necessary if models and frameworks were to be proposed that can be used further (Burgess et al. 2006). Although this chapter is exploratory in its empirical research setting, it is testing theory from outside the traditional scope of events and festival literature, through the application of SCM principles. More quantitative methods of data collection and analysis would not be suitable since they offer little in terms of explanatory depth, which was needed for the research objectives of exploring festival supply chains and deploying SCM concepts, theories and models in this specific setting. Generalisability is often cited as a criticism of qualitative research and although such research is very specific to this context and a specific set of relationships between specific individuals, it does: "...provide sufficient information that can then be used by the reader to determine whether the findings are applicable to the new situation" (Lincoln and Guba 1985 p125). Although the context of the setting may not be replicated in other scenarios (as different organisations and individuals will be involved) it should be noted that the intent is to generalise to theory (Gioia et al. 2013) through showing the usefulness of the analytical framework and therefore being analytically rather than statistically generalisable (Yin 2002 p32).

To ensure research quality, we have made use of specific guidelines identified by Riege (2003), which have been widely accepted to demonstrate the rigour undertaken in qualitative research. Specifically, dependability concerns were addressed by careful data management, through recording interviews wherever possible. There were several chance meetings where data was obtained that could not be recorded. However, field and verbal notes were taken as soon as possible afterwards. Similarly, having two research interviewers involved at certain stages increased this area of quality consideration. Furthermore, triangulation plays a key role in this area of research quality and therefore multiple perspectives from different interviewees were considered as well as the use of organisational artefacts to support findings.

The case of this chapter is a collection of organisations that, at this particular time and in this particular context, have buyer-supplier relationships with each other in the pursuit of providing services to festivals as part of a broader festival supply chain. The primary research included one-to-one interviews with senior individuals from three different organisations within a festival supply chain. These included:

- The national account manager (NAM) for Organisation A that is an international high-end Public Address (PA) system manufacturer
- Four directors (1, 2, 3 & 4) from Organisation B who are an international UK-based PA supplier to festivals and the music industry
- The festival director (FD) of a multi-international UK-based music festival (Organisation C) that attracts an audience in excess of 250,000 each year to its UK outdoor festivals

The interviews themselves took the form of semi-structured interviews that were based around a number of fundamental questions that covered purchasing activities, relationships with customers and suppliers, sourcing products and sales, the methods involved in these activities and the issues involved within the methods used. The semi-structured nature of the interviews allowed for open discussions that established how each organisation functioned

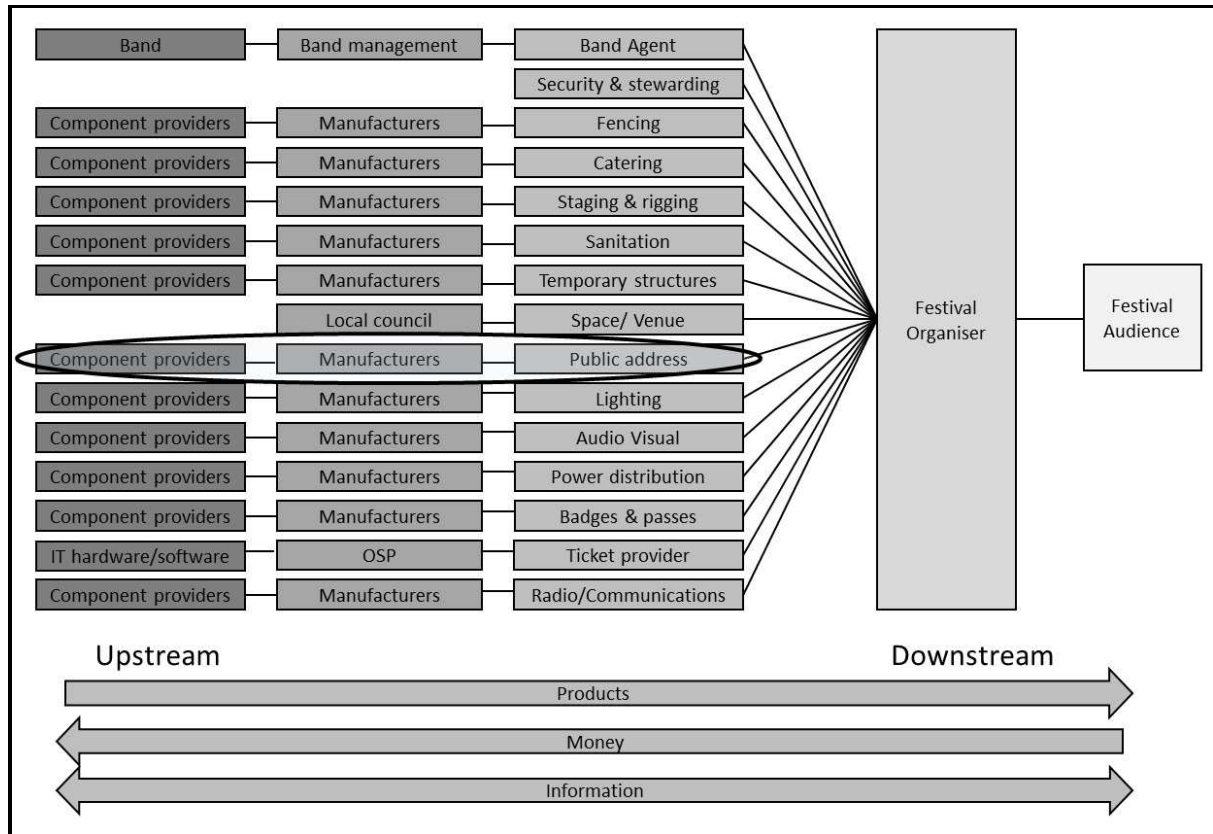
within the festival supply chain and also what purchasing practices were used in line with the requirements from their customers and their customer's customers.

As the supply chains of organisations are often not openly revealed and therefore knowledge of them cannot be fully established prior to close organisational contact, snowball sampling (Babbie 2001) was used to obtain contact details and also introductions to other organisations in the focal supply chain. This ensures that matched pairs of organisations in the supply chain are included in the data collection, as they will be discussing the same goods/services that ultimately will be provided to the same set of customers.

Findings & Discussion

This section is divided into two main parts and which reflect the objectives of this chapter. Firstly, we developed a view of the festival supply chain by identifying the different organisations within the supply chain study. This informed the need for the analysis in the second section which zooms in on specific interactions between organisations within a supply chain and considers the theory of the Bullwhip Effect and Kraljic's Purchasing Portfolio Model to provide a more structured discussion of the ramifications of these issues. A schematic of a supply chain was developed based on the data collected and supported by relevant organisational documentation. To illustrate the inherent complexity, a layered approach was developed that opens up the supply chain in much more detail and highlights the main area of focus. *Figure 3.* provides a view of a supply chain for a large festival and details the typical flow of information, money and products.

Figure 3: Macro supply chain representation for a large outdoor music festival.

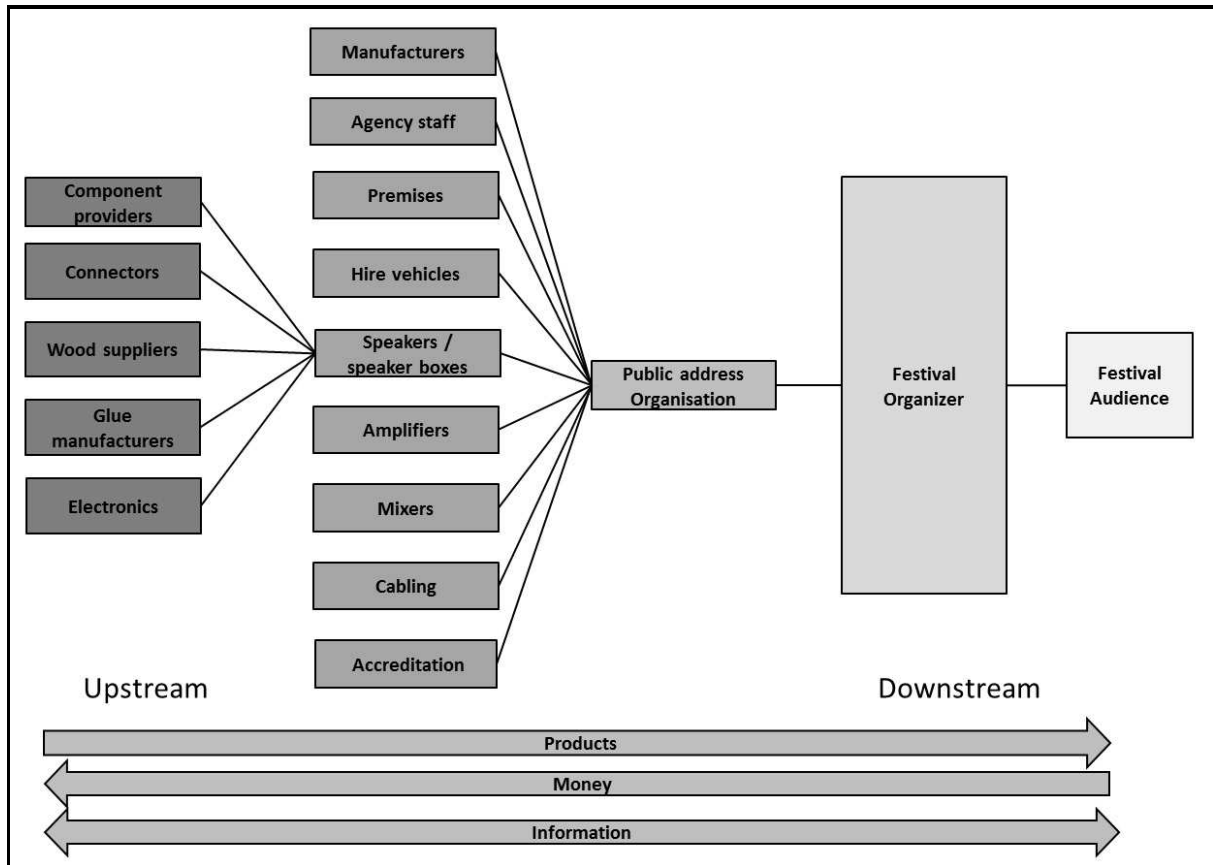


Source: Ryan & Kelly 2017.

By focusing on a single supply chain (as per the circled area in *Figure 3.*), the PA supply area, the complexity and relevant factors of supply chains within supply chains emerges. To keep the supply chain diagrams at a manageable level, the links between festival suppliers have focussed on core supply, i.e. the supply of products/services that relate to the direct products/services that the focus organisation provides to their customers. This means that areas of non-core supply and provision, which support the running of festival suppliers such as electricity, furniture, stationery, shipping etc., are not included in these representations. However, it is recognised that these still play a role in the overall delivery, as they are indeed areas of expense for festival suppliers and they should still be appropriately managed with effective purchasing practices. It is important to point out that festival suppliers often supply

multiple festivals within different supply chains at the same time, (adding to the complexity), but for this initial study, each supply chain is considered a separate entity.

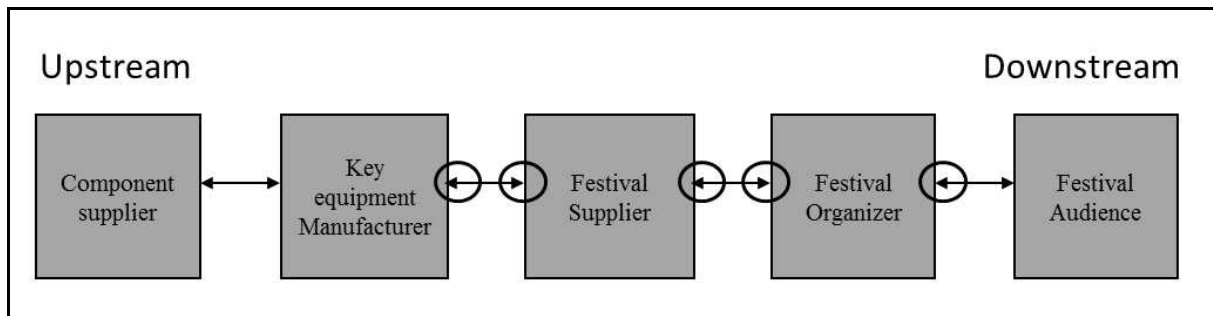
Figure 4: Micro supply chain representation for a large outdoor music festival



Source: Ryan & Kelly 2017.

The data collected has been taken from a number of different organisations that constitute an individual supply chain in the larger representation shown in *Figure 3*. The focus of this study and supply chain is reconfigured in *Figure 5*. to show the range of organisations involved in manufacturing right through to the festival audience. The circled communication arrows highlight the source of the primary data and can be organisationally represented as follows:

Figure 5: Organisations, primary research and communication points within the supply chain



Source: Ryan & Kelly 2017.

Having established the specific nature and complexity of a festival supply chain, two key areas are revealed; the key role of information flow and purchasing behaviour, which are now discussed in turn.

The key role of information flows in the supply chain

As shown above in the discussion of SCM, a key driver of co-ordination amongst supply chain members is the management of information flows (Lee et al. 2004) and in particular the flow of demand information, i.e. what and when products/services are needed (Lambert 1998). Some of the challenges identified in this study and mapping process showed that information flows, and their unpredictable nature, highlighted problems with the way the organisations functioned; for example, the impact of the Bullwhip Effect on the rest of the supply chain. The Bullwhip Effect was first observed between Proctor & Gamble and its suppliers where slow moving consumer demand created large swings in production for the suppliers at the other end of the supply chain (Wang and Disney 2016). This effect can lead to companies making unexpected changes to their working practices to counter these issues.

During the interview process, it was revealed that companies within the supply chain regularly have to review their purchasing activities. Previously, Organisation B had followed a purchasing process that allowed each department to order components as and when the need arose. While this gave more control to each department to deal with supply and demand issues, it created an environment that suffered from pressure purchasing, leading to a lack of control of inventory and finances within the business with problems such as double ordering of stock and oversights on what items readily available for use. In order to combat these and other issues, Director 2 of Organisation B was made responsible for all purchases to reduce waste, tighten up on financial expenditure and bring inventory under control. Director 2 explained:

“Purchasing on the whole is done more on opportunity now, taking advantage of when discounts are available [from our suppliers]. Only if rigs are on the road and unavailable and a big hire comes in is a pressured purchase made”.

Similarly, when reviewing purchasing activity after a long-term development programme to offer wider availability of their product in each territory, Organisation A observed better sales revenue, but a reduction in their profit margins. While this effort had created much greater access to their systems, the NAM detected that the increased competition between new and existing account holders was driving the price of their product down. More importantly, the available reserves that sustained the after-sales service and maintenance expected of a high-end product were being constricted. Considering an average purchase price of between £75,000 and £300,000, the after-sales maintenance was central to the ongoing customer satisfaction and the high-end status of the product. In order to counter this, Organisation A made the decision to reduce the number of points of sale (account holders) and introduce a global programme of Certified Providers (CP's) reducing the widespread access to their product in the UK from 35 account holders to 9 CP's with enlarged sales territories.

The NAM explained that by reducing the number of points-of-sale, they were not only able to maintain much more control over the final sale price, the trust levels between manufacturer

and festival supplier increased substantially. The most notable development was almost complete visibility of the manufacturer's customer's customers. These improved levels of trust between manufacturer and festival suppliers led to closer engagement and collaboration with the customer's customers. The increased visibility provided new opportunities and levels of access that had never existed which led to direct discussions about the design of each project. Previously, communication would have ended one step further up the supply chain. By reducing the number of points-of-sale, the manufacturer was able to provide direct advice further down the supply chain on technical specifications. This new flow of information also created improvements up the supply chain such as informed design suggestions before the final proposal was submitted. The resulting impact both up and down the supply chain was ultimately enhancing the experience for the festival audience end user. The NAM stated that, *"because we (Organisation A) became heavily involved [with our customer's customers] a much more informed understanding was created"* improving the final product and virtually removing the Bullwhip Effect from the supply chain, which could have led to major implications at a later date.

With the increasing attendance at major festivals, greater demands are placed on everyone within the supply chain. Festival suppliers experience amendments in key aspects of the planning activities which then require an ability to respond rapidly to keep the event and supply chain on track. If we take a supply chain perspective of these, we can see that issues may arise as these challenges flow downstream towards delivery. We have described how the Bullwhip Effect means that as problems arise, they become amplified further up the supply chain. When these problems are not addressed, then the effect can lead to a tipping point in the organisation's ability deal with the problem, which as Akkermans and Vos (2003) suggest can lead to significant issues in delivering goods and service. Practices that may seem rational from a local and short-term perspective lead to issues in the overall supply chain and ultimately affect the end user experience (Anderson et al. 2005).

From the empirical data, further complexities were revealed that highlight the pressure not only to provide a quality experience, but also to deliver on time and at a profit. Often, in festival and events management, there is a critical period of time just before a deadline, (assumed or agreed), when actual decisions are made. At the highest level, organisations will usually have a number of festivals and events to supply at the same time and ensuring all the necessary equipment is available and arrives in a satisfactory and working condition is dealt with on a regular - or as Director 2 of Organisation A suggests “*as regular as is possible*” - basis. This suggests there are a number of different demand patterns at multiple levels throughout the process.

Although demand patterns have a major effect on the events final ‘experience’ they appear downstream (closer to the customer) of the supply chain and can (or should) be fairly easy to predict in aggregate terms; for example, the actual date of the festival. As we discovered, this does not flow upstream until much later as signing contracts and agreements can be left until very late on in the process. Consequently, the risk and time pressure is pushed towards the festival suppliers in how they manage their capacity (e.g. buy, service or manufacture products, hire or lay staff off). The Managing Director of Organisation B stated: “*we did a lot of festivals last year and it’s not like you’re given a 3 or 4-year contract even when you do supply a great experience. You’ve got to win each contract year-on-year*”.

This kind of activity manifests itself in pressure zones, contributing to the Bullwhip Effect on the final experience being created for festival suppliers during the day, the week and the year. For example, festivals are held at regular times throughout the year. Therefore, certain months are particularly busy and decisions at that time are affected by the added pressure. It was explained by Director 2 from Organisation A that pressure on repairs to equipment receives a rush towards the end of the week as the weekend is largely the busiest period for festivals and events. Then towards the end of the working day, pressure is increased on individual staff members as calls and enquiries both internally and from external sources

increase. However, the type of demand and where it will come from is far less predictable making investment in personnel, equipment, servicing and new business much more complicated.

A typical example of this effect occurs when suppliers go back up the supply chain for corrections. These corrections can include reviewing 'to-do' lists, making repairs to equipment, reviewing inventory requirements and increasing the use of temporary labour.

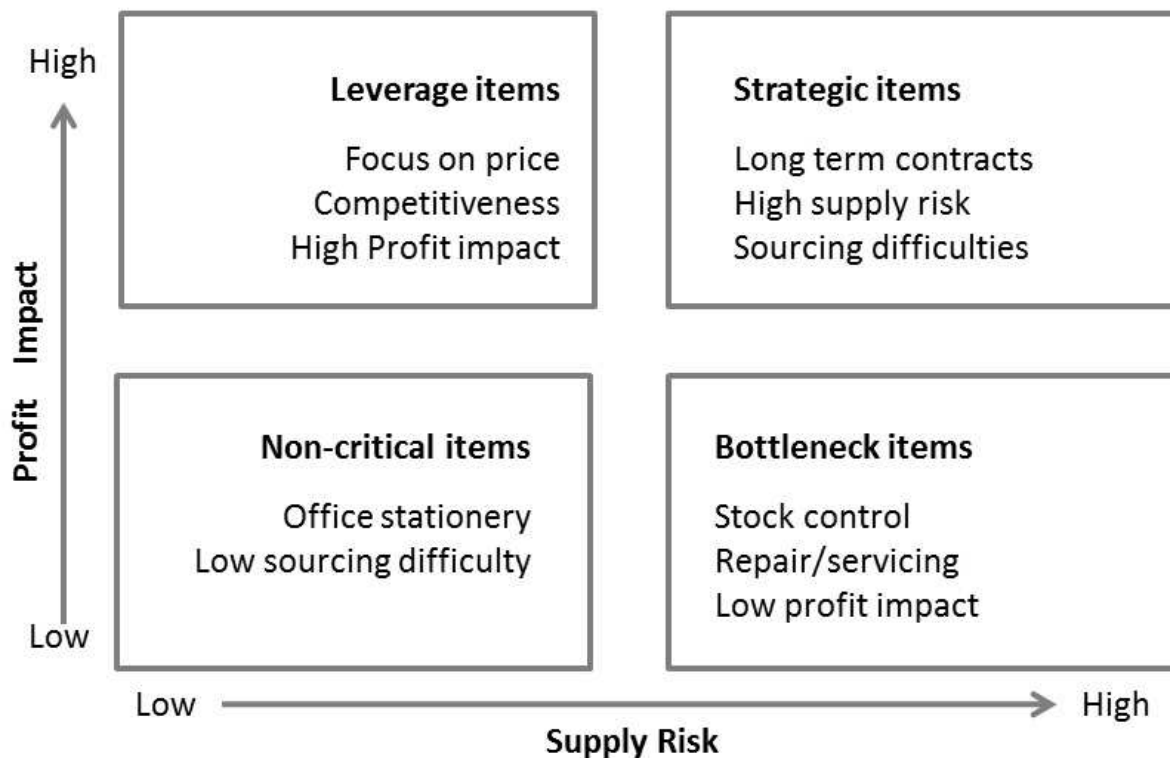
Effect on purchasing behaviour – the purchasing portfolio model

Despite a number of studies on purchasing related activities of the festival audience, i.e. the consumer (Felsenstein and Fleischer 2003; Gripsrud et al. 2010; Kim et al. 2011; Alexander et al. 2012; Shone and Parry 2013), there is a distinct lack of research regarding the behaviour, practices and purchasing activities experiences of festival and event managers. When considering the importance of the festival manager's role in delivering 'an experience' (Berridge 2007), while at the same time generating a competitive advantage, it is clear that it is an increasingly important research undertaking to understand the influences over purchasing decision making in festival supply chains.

During the interviews, each organisation described how their own purchasing practices affected others in the supply chain, with both positive and negative consequences. Some areas have been discussed, such as the streamlining of internal activities to regain control of inventory and pricing and the importance of points of sale in maintaining profit margins for a high-end brand image that was maintained with the necessary support such products demand. Other factors included how contractual terms were agreed with major suppliers for high profile events and how replacing damaged items or the ordering of replacement parts to repair damaged items is maintained.

As specific purchases will be of differing importance to an organisation, in terms of their value, effect on customer satisfaction and strategic importance, it is clear that single purchasing practices involving the same behaviours will not be appropriate or desirable in all circumstances. It is therefore important to be able to distinguish between purchasing behaviours and the relative impact on the organisation. One commonly used approach in the SCM field is to link categories of purchase type to specific and suitable purchasing practices and ways of working are used depending on what products/services are being bought. There are a number of different variants of such a model, but the one developed by Kraljic (1983) forms the basis for many and is therefore adopted for this study. This classifies products or services along two axes; where they have different levels of impact on the event and different levels of supply risk or supply market complexity (as shown in *Figure 6*).

Figure 6: Kraljic's (1983) Portfolio Purchasing Model.



Source: Kraljic, P. (1983). "Purchasing Must Become Supply Management." Harvard

Business Review 61(5): 109-117.

By positioning categories of supply (not single suppliers) into one of the four quadrants then different purchasing practices can be adopted which “fit” with the type of category. These have been covered in some detail in both research papers (Gelderman and van Weele 2002; Padhi et al. 2012) and textbooks (Cousins et al. 2008; Trompenaars 2014). In principle, those that are in the non-critical items (routine), such as stationery and other office supplies, have a focus on efficiency and as the cost of moving from one supplier is low (as there are a number of suppliers in the market) the objective is to pay the most competitive price. Those at the opposite end of the matrix, strategic items are those that have a high impact on the festival supplier’s profitability, such as AV equipment, and are also characterised by high supply risk (monopoly supply etc.), which suggests that a co-operative relationship is more suitable.

Having identified a number of pressures zones in the preceding section, we now turn to the effect these have on the purchasing practices of the organisations in the supply chain, through the use of a purchasing portfolio model as a lens through which to gather structured insights.

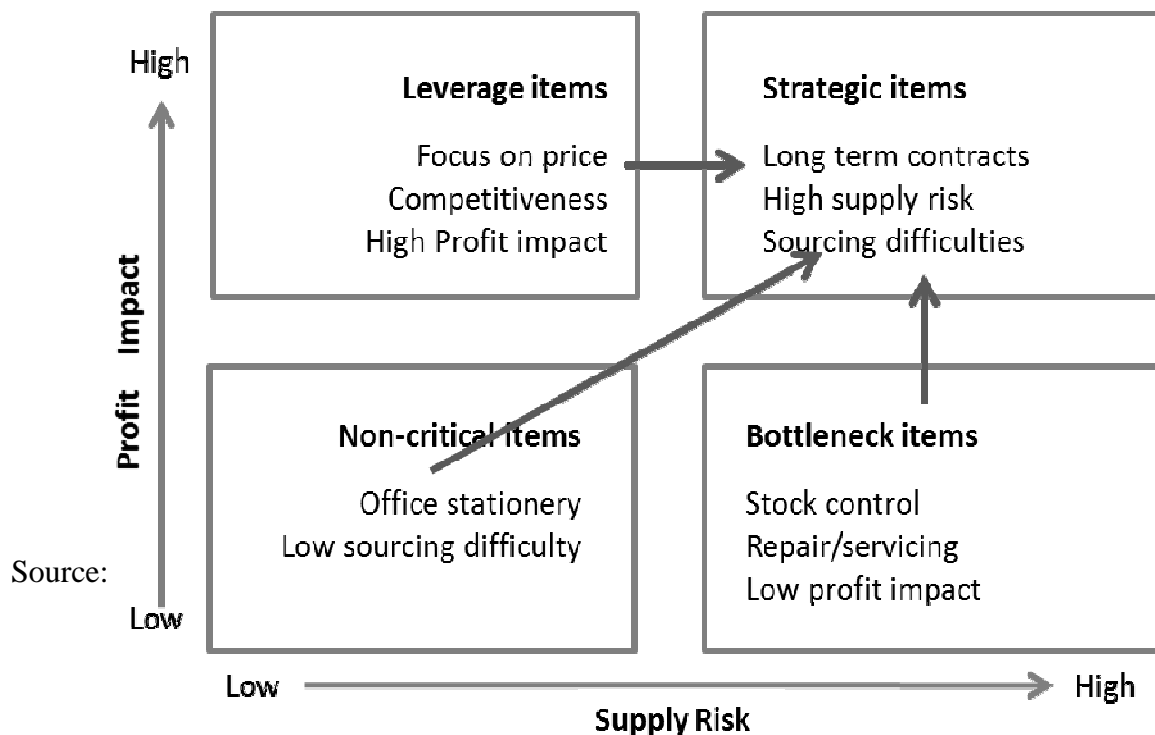
The actual impact on business can be seen on the organisation of the product/service as the internal effects create a tendency to view a purely financial (e.g. profit) impact. For example, considerations such as poor quality would consequently impact the ability of the organisation to sell to their own customers. However, in keeping with paradigm shifts in events, there may be broader considerations of health & safety, sustainability and ethics that may have a non-profit link. Examples of this include, maintenance of the supplier’s equipment, attaining accreditations such as ISO 140001 or 20121, although this is of course a contested area in itself.

The supply risk can be seen as the external factors that may affect buying practices for festivals. These are, for example, how many festival suppliers operate in the market place, thus influencing the switching cost of moving between suppliers and the inherent complexity of the supply market. Of course, this is not a static reflection as the external supply market will change as technologies are developed, when festival suppliers cease to trade or are

unavailable or when new suppliers enter the festival market. Similarly, the internal impact factors could shift as the reliance on certain products or services change due to changes either in business direction or as has been the case, the cancellation of multiple festivals (MusicWeek 2012; Thump 2016).

What the empirical data shows us is that this congestion of finance and information flow through the supply chain creates a heightened level of pressure in getting the experience for the end user right. These are manifested by the pressure zones, which suggest there is a greater impact on the festival supplier. This effectively *forces* the movement of categories of supply from routine items “up” into the higher segments of the matrix and therefore forcing specific and less appropriate purchasing practices onto the festival supplier. This means that goods/services, which could be treated as non-critical items are “forced” into the characteristics of a strategic one, which involves a considerable deployment of internal resources, which, if the pressure zones were managed more effectively, would not be necessary.

Figure 7: Kraljic’s (1983) portfolio model (adapted).



Kraljic, P. (1983). "Purchasing Must Become Supply Management."

Harvard Business Review 61(5): 109-117. (Adapted Ryan & Kelly 2017).

This manifests itself in a number of potentially serious consequences such as ordering at short notice, postponing planned safety inspections until after an event, not having time to make effective selections between suppliers leading to increased fees, loss of supply or the need to ensure the festival supplier has an even closer relationship with its own suppliers than it may, under normal circumstances, choose to do; resulting in unnecessary resource deployment. When such instances occur, complications can be sensed or amplified by knock-on effects that can eventually affect the festival audience experience of the event through the festival's management supply chain. A lack of effective demand management processes, compounded by a lack of clear information flows has a sizeable effect on the purchasing practices which means that the organisations cannot take advantage of the most effective and efficient purchasing practices, which would normally be associated with strategic purchasing behaviour. The most basic activities are creating potentially fatal consequences.

Implications and conclusions

It is clear that the current landscape of demands affecting the delivery of festivals provides a renewed set of supply chain challenges. This requires a new set of approaches from festival managers to understand the most appropriate, efficient and safe operations for their event.

This section now summarises the findings to generate clear recommendations for practitioners in the festival field, as well as generating future research ideas for academics and providing learning opportunities for students in the area.

Firstly, clearly mapping an empirically-based festival supply chain highlights the diversity of organisations involved and the complexity of managing supply chains in this field. Also, it shows that organisations beyond the direct control of the focal organisation may materially affect the delivery of high levels of customer service to the festival audience end user.

Secondly, the chapter highlights the importance of responding quickly to information that comes from the supply chain. Using the concept of the Bullwhip Effect as applied to an empirical festival supply setting, it has highlighted that the pressure zones created by the tapering of information flows may result in the adoption of inappropriate activities and practices. This could have the effect of poor performance at the level of the supply chain and a corresponding effect on the festival attendee's satisfaction. Not doing so can result in poor overall management of the supply chain (not necessarily at the level of an individual organisation) and lead to serious and in some cases fatal effects on the festival attendee's experience. Similarly, minor, incremental, often unintended or unforeseen incidents suggests the behaviour of one organisation can detrimentally effect another organisation in different parts of the supply chain. Increasing the timely availability and the amount and quality of information flows through the supply chain by making demand data available to suppliers, should positively impact the particular supply chain's ability to compete with others and increase the overall quality of the event.

Thirdly, if organisations consider the effect that their behaviour might have on the wider supply chain, then it should mean that the overall experience of a festival attendee will be improved. This does not require an overly altruistic perspective with the underlying thought that such actions might improve their competitor's performance as there is enough variability in supply chain organisational selection to offer distinct advantages to the performance in their "own" supply chain.

What becomes clear from discussions with the various organisations in this festival supply chain is that whilst they are operating in different goods/services markets, they are faced with similar challenges because of the overall supply chain they operate in. The time and resources that are devoted to festival delivery are considerable and, although this means that many events are a success, a more organised approach may provide an opportunity to make a more efficient use of internal management resources.

The turnover of each organisation in this supply chain is substantial, (£100's of millions) and cash flow (money) continually affects purchasing practices as there is a sustained focus on budgets, which always have limits. This means that the timing of the different activities, (both positive and negative), can have a knock-on effect further upstream or downstream in the supply chain. A critical skill that exists in festival management is the ability to anticipate and predict possible outcomes of any given situation; whether it is a risk or opportunity. This ability to make the right decision is a skill that can recognise possible advantages or prevent potential disasters.

It was observed throughout the interviews that the business of sound reinforcement or PA supply is fundamentally convivial and the passion expressed by those involved was clearly evident. Even though the work included long and often exhausting days, the nature of the work appears to provide a clear sense of job satisfaction for all those involved. However, while this was observed within this supply chain and is likely to be mirrored across other similar supply chains, there was evidence of serious rivalry between other festival supply chains and communication does not exist in any capacity across these divides.

The rationale for increased levels of SCM are the positive impacts that effective and efficient SCM can have on the overall supply chain, including; increased sales margins, greater levels of inter-organisational collaboration in terms of closer working relationships and the ability to adopt greater levels of strategic planning and purchasing behaviours.

While successful festivals are largely about varying levels of excitement for the end user, this research has highlighted that from an organisational or delivery perspective, festival management favours *uneventful* processes. Fewer surprises and greater levels of predictability allow for less complicated delivery procedures and the adoption of more suitable SCM practices. The chapter also highlights that there is a clear opportunity to build on this initial empirical research through the deployment of SCM concepts, theories, models and techniques in festival management, the classroom and other empirical festival settings.

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