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SERVITIZATION AND ENTERPRIZATION IN THE CONSTRUCTION INDUSTRY: THE CASE OF A SPECIALIST SUBCONTRACTOR

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The current economic climate and a continuing fall in output of the UK construction industry has led to falling prices and margins particularly affecting those lower down in the supply chain such as specialist subcontractors. Coen Ltd. is one such company based in the West Midlands. Faced with a need to up its game it has embarked on a business improvement programme concentrating on better operational efficiency, building stronger client relationships and delivering value added services. Lacking appropriate internal resources Coen has joined with Aston Business School in a 2 year ERDF sponsored project to fulfil the transformation programme. The paper will describe the evolution of product- service offerings in construction and link this with the work being carried out at Coen with Aston and outline the anticipated outcomes.

Keywords: Enterprise management, Process Mapping, Servitization

1. INTRODUCTION

Construction is a major contributor to UK GDP, peaking at 10% overall in 2008, and a major driver of historical GDP growth. The construction industry value chain consists of approximately 300,000 firms the majority of which are small and medium sized family and local businesses. A significant proportion of construction employees, approximately 60%, are low skilled labourers with relatively limited alternative employment opportunities (LEK Consulting 2010).

UK government investment has played an important role in growing the country's capital stock, this has been historically focussed on infrastructure, education, housing and health, historically representing 30-40% of construction demand. Compared to its European counterparts, the UK has suffered from a more pronounced decline in construction activity since the onset of the recession. The continuing dearth of new orders in the UK (construction output fell by 8% in 2012) is forcing many construction related

industries to fail and a number of those remaining to reconsider their strategies and *modus operandi* (ONS 2012).

Coen Ltd is one of those businesses that has chosen to revisit its traditional role as a West Midlands based specialist subcontractor. Established in 1968 the company is a privately owned successful business supplying subcontract support to the regions construction industry, repeat order levels are high. In seeking to refine their business processes, get closer to customers and build a more sustainable future Coen have joined together with Aston Business School on a European Regional Development Fund (ERDF) sponsored Knowledge Exchange and Enterprise Network (KEEN) project to achieve these goals. This is a 2 year project which commenced in January 2013.

The KEEN project incorporates consideration of the wider enterprise requiring product, process, supply chain and client body to be viewed as a single entity and engaged simultaneously in a process known as enterprise management (Binder, Clegg 2007). Enterprise management has evolved from external changes such as globalisation, outsourcing and virtualisation which are outside the boundaries of the traditional company. An extension of these collaborative relationships is to re-examine the output provided to the client in terms of added value linked to a more holistic offering - satisfying a need and providing a service as opposed to merely delivering a product (servitization) (Baines *et al.* 2009) This application will be tested during the on-going KEEN project.

2. UK CONSTRUCTION

The complex nature of the contractual arrangements and communications between the many parties involved in construction projects both large and small has over the years generated an adversarial culture which lasted well into the 1990's. The advent of the consolidated 'Design and Build' service with related contracts in the '80s had opened the industry's eyes to the benefits of collaboration at a critical point in a projects lifecycle, design development, and the integration of contractors expertise before the end product was "cast in stone" A natural progression from closer working between client, design team and contractor came about under the name of "partnering" where project teams worked for the same client on multiple projects benefitting from accumulated experience and established relationships. It is here that we see the first glimmerings of servitization appearing in the industry, albeit in a very modest way.

It was against this background that the government commissioned a report on procurement and contractual arrangements in the UK construction industry, aiming to tackle controversial issues facing the industry during a period of lapse in growth (Latham 1994). The report identified industry inefficiencies, condemning existing practices as adversarial (not for the first time), ineffective, incapable of delivering for its clients and lacking in respect for its employees. Latham urged reform and advocated partnering and collaboration by construction companies. The reports spawned a raft of initiatives including the Construction Industry Board to oversee reform. Subsequent initiatives included (Egan 1998) which also focussed on collaboration and movements such as Constructing Excellence. A proportion of enlightened clients including property developers and retailers such as Tesco saw the advantages of working in this way, however the industry's move towards servitization was given a major boost by a change in government procurement policy. The Private Finance Initiative (PFI) was a move by the government to generate a healthy public building programme without the necessity to borrow from the market to fund the capital expenditure up front. Instead the providers would receive a performance related payback over an agreed term (*circa* 25 years) Bids were requested to fund, design, build operate and maintain new hospitals, schools, roads *etcetera* and major contractors such as Balfour Beatty, Interserve and Carillion transformed themselves into service based organisations. Subsequent major outsourcing initiatives for maintenance of infrastructure and facilities both public and private sector boosted this sector. PFI is currently under review due to cuts in Government expenditure and suspicion that providers may have overpriced in particular with the cost of the after-build service. However there is currently a division between the classic servitization process based around PFI and a significant contributor to industry output

regarding house-building which operates as a trader of land and manufacturer of homes with limited after sale service.

Concomitantly methods of constructing the structure and fabric of homes and the installation of heating and ventilation need to comply with carbon reduction and related government regulation becomes more sophisticated house-builders will need at the very least to be more alert to the need for user training in operation and maintenance. The Government's plan to introduce post completion testing (PCT) for residential properties will also place an additional burden on the builder and possibly involve an extended relationship with the purchaser. PCT has appeared on the agenda due to some evidence of deficiencies in actual thermal performance against design for completed properties). In another step towards servitization builders, have responded to a government initiative to increase provision in the affordable private rental market.

The Government's public surplus land holder, the Homes and Communities Agency (HCA), has joined with Berkeley Homes subsidiary St. Edward and Prudential's asset manager M&G to provide 534 private rented homes, and in a separate initiative M&G are funding a build to let model to be rolled out across the country by Willmott Dixon to build 1000 private sector rented homes spread across London and the South East in partnership with local councils.

3. COEN & THE KEEN PROJECT

The on-going recession has hit the construction industry hard and company failures are being reported on a regular basis, mainly at the SME level, including contractors, subcontractors and suppliers. Coen Ltd. recognises that to survive and flourish in this climate there is a need to retain existing clients and expand its offering organically. From its origins specialising in traditional services (e.g. plastering, dry lining, suspended ceilings, insulation for the private house building sector), it increasingly supplies more specialist services such as structural framing systems and more environmental and technical focussed services including external wall insulation (EWI) to a diverse client base in both private and commercial markets where significant growth and diversification opportunities have been identified.

However, although adequate for current business activity and level, internal business processes are inefficient and inadequate for the significant growth and diversification that is planned. This project will underpin the company's aspiration to become an integrated provider of construction services, offering enhanced service provision to a wider range of national clients.

A recent review highlighted that 50% of current business comes from commercial building, (i.e. social new build, schools and care homes). This yields significant repeat business from large contractors such as Wilmott Dixon, Bullock & Wates. The established relationships with such larger contracting organisations provide opportunity for Coen Ltd. is to offer extended product/service provision within current arrangements and agree additional contracts in new product ranges that fit with Coen's skillset - especially those offering increased environmental benefit e.g. Coen Ltd.'s entry into the External Wall Insulation for existing solid wall housing stock market with the contractors E-On, Mark Group & Lovell. This market alone has the potential to more than double Coen Ltd.'s turnover in the next 12months.

Coen Ltd. will grow by offering additional added-value project and customer management services to clients which will be prompted by the application of enterprise management and engagement with the wider enterprise. Achieving this will facilitate entry into new markets and regions and contact with larger national clients. Coen Ltd. is a successful business with high levels of experience of the current construction sector. However, management processes and supply chain processes are inefficient (very common in the construction sector). Coen Ltd currently lacks the knowledge to identify, develop and embed strong and forward thinking processes and culture required to take advantage of the strategic growth opportunities it is well placed to secure. In particular, skills in the following are required:

- Planning and scheduling
- Process and relationship mapping and optimisation

- Process automation through increased use of IT
- Customer relationship management/opportunity spotting
- Continuous improvement
- Basic self-promotion /marketing.

The company realised that the construction sector is developing at such a pace there was insufficient time to grow these skills naturally and pro-actively sought assistance from a partner organisation in the implementation and successful completion of a business improvement plan.

The project is being carried out under a two year programme commencing January 2013 and has three phases:

- Phase 1 – Review of current operating procedures, culture and strategy, identify improvement plan for Coen Ltd.
- Phase2 – Engage with companies in Coen Ltd.’s wider enterprise, hold workshops and plan implementation of ideas generated by the wider enterprise
- Phase 3 – Implement business improvement measures and change throughout the enterprise and reposition Coen as an integrated provider of construction services.

At the time of writing the project is well into Phase1 and initial ‘as is’ process mapping (Paton *et al.*, 2011) nearly completed and knowledge gathering of the company’s organisation, culture and strategy has been collated into a preliminary improvement plan. From this improvement plan work has started on ‘should be’ process maps and organisational change. Initially a strategic business process was drawn up (Figure 1) showing in summary the basic building blocks of the company and their subsidiary functions.

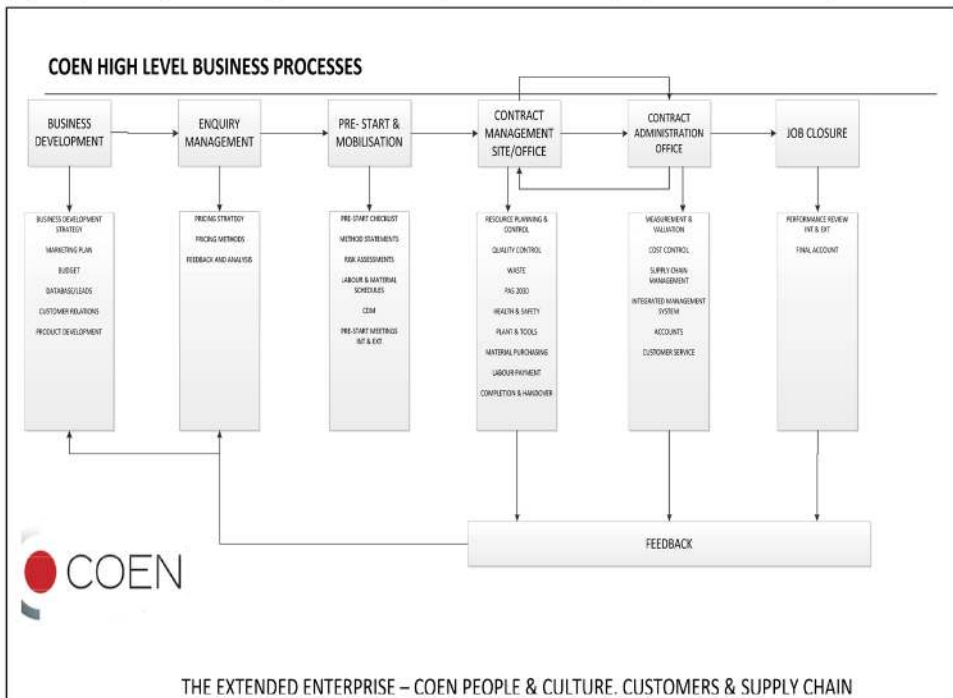


Figure 1: High Level Business Processes

Having mapped out the high level process each of the six building blocks was then broken down into their constituent tactical process maps. At this stage detailed consultation took place with staff involved directly and indirectly to identify areas of wastage and opportunities for improvement, including appropriate IT based systems. The final stage is to identify and draw up operational maps which detail basic tasks such as labour payments and credit control. As strategic and operational maps emerged staff were nominated to champion their introduction into main stream management of the company in recognition of the absolute need to gain buy in to the overall improvement programme.

The project is currently entering the early part of Phase 2 where opportunities and initiatives will be explored with the wider enterprise to collaborate and identify process links (Boardman and Clegg 2001).

An example of the project stimulating improvement and possibly enhancing the company's offer in the future is the process for payment of directly employed and subcontract labour. Historically this has been a source of waste, mainly of staff time checking variable quality information, and dealing with incorrect payments. The rapid growth of Coen Ltd. over the past 12 months had highlighted the need for reform in this area assisted by the production of a 'should be' process map. Coen Ltd.'s managing director had been working on an online solution with checks and balances which could be accessed by mobile phone or computer for the labour force to book in their times on the normal weekly or fortnightly cycle and this initiative (project Gemini) is one of the first to be included in the emerging improvement plan. The proposition is that once Gemini has been launched and proven the process could be commercialised and marketed to other subcontractors and businesses with multi-site mobile labour forces.

At the same time Coen Ltd. are working with Carillion, the Green Deal provider for Birmingham Energy Savers (BES) to provide EWI services. The Green Deal is an ambitious government sponsored programme to retrofit energy saving measures to the existing housing stock with no additional cost to the occupant, the cost of installation of the energy saving measures being covered by the reduction in gas/electricity bills. The Green Deal process covers an initial assessment with recommendations for energy saving, funding for a loan which the occupier pays back over a set period and installation of the energy saving measures. The whole process is managed by a provider. Coen Ltd. are taking part in a pilot scheme for BES with Carillion and providing cost plans, advice on specification, working methods, programme and process mapping thus extending the range of traditional supply and fix on site work. All of these initiatives are aimed at allowing Coen Ltd. to become more service orientated (i.e. through servitization) and engage with their wider enterprise (i.e. through enterprization) increasingly tightly.

4. SUMMARY/THE FUTURE

The UK construction industry continues to struggle in the face of reduced orders from both public and private sectors. The coalition's March 2013 budget provided a stimulus to the private house-builders through the Help to Buy scheme and continued financial assistance to first time buyers, other sectors likely to grow are renewable energy, care homes, budget hotels, education, health and rail (The Thomas Consultancy 2012). It is against this background that Coen Ltd. are striving to improve their business performance and embrace modern operational tools such as enterprise management and servitization. As a result of participating in the KEEN project it is anticipated that through an enhanced service and enterprise management capability Coen Ltd. will create competitive advantage, improve return on existing contracts, support more sustainable relationships, facilitate access to new contracts with larger clients, and support a more resilient enterprise wide strategy. Coen Ltd.'s current position towards the bottom end of the supply chain makes it difficult to provide an improved product-service along the lines of the major construction companies without such servitization and enterprization initiatives - which will move them towards becoming turnkey providers of construction services. The company therefore has to be that much more pro-active and opportunistic in pursuing a broader product-service offering.

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