Survey of the Modular and Portable Buildings Sector

Report to the MPBA

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THE MODULAR & PORTABLE BUILDING ASSOCIATION
The voice of the modular industry

University of Salford MANCHESTER

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1 Introduction

Background information on the MPBA

The Modular and Portable Building Association (MPBA) was established in 1938 as the leading UK Trade Association, representing and promoting the use of temporary and permanent modular buildings[1].

Since inception the MPBA has played a critical role in the overall development of the modular industry. The MPBA prides itself on its extensive knowledge of offsite construction and the high level of service it delivers to its members. All committee and board members have extensive experience in the industry and adopt the Association's key promise of being completely transparent and trustworthy in their dealings with all members, customers, other trade bodies and government departments and agencies.

The MPBA has eight key objectives:-

a. To maintain and improve standards of service, performance and product quality of the Modular and Portable Building Industry.
b. To promote the expansion of the industry in ways which benefit its customers and members.
c. To promote just and honourable business practices at all times.
d. To encourage, promote, protect and defend the legitimate interests of all members by liaising with appropriate authorities.
e. To represent the industry in meetings/communications with national and local governments, public authorities and standard setting bodies in respect of relevant legislation and standards.
f. To provide a referral service for potential industry customers.
g. To provide members with information, data and statistics relating to the industry and also a forum where opinions can be exchanged.
h. To be a driving force to encourage and facilitate members to further educate, train and develop themselves and their staff.

In order to assist with the delivery of these objectives the MPBA provides a number of key bespoke support services to its members including:-

- The Learning Hub – A specialist Accreditation and Training Centre which provides industry specific qualifications developed by the Association. Members are able to develop the skills of their staff via NVQ's, Construction Skills (CSCS), specialist health and safety training and electrical courses. The MPBA is currently working on an apprenticeship for the sector through the Trailblazer scheme.
- Business Shield – A free Health and Safety and Employment Law service
- Technical – Advice from dedicated experts on any issues relating to guidelines and regulations relevant to the industry

In addition to the above, the Association is actively represented on committees for BSI, LPCB-Expert Group D and also works with BRE, LABC, MHCLG, HSE, NHS, Cskills-CITB, and Carbon Trust to represent the industry.

Further information is available at www.mpba.biz

Why commission this report?

The Modular and Portable Building Association commissioned this report through the University of Salford primarily to identify the size of the sector and the relative size of the hire and sales sectors within it. This information has become increasingly important to the MPBA in their discussions with Government and other agencies. The outputs will also assist the Association in developing and improving its service to its members.

This report documents a survey and desktop analysis of MPBA members and other companies in the sector carried out by the University of Salford between January 2018 and March 2019. The online survey received 57 responses and this, together with public domain information, primarily from Companies House, has enabled an estimation of the size of the industry in the UK.

In section 2, the methodology of the study and analysis is presented. Section 3 details the results, starting with the quantifications of the survey responses, split by areas of activity relating to sales and hires of new and used cabins, modules and modular buildings. Section 4 presents reflections from the respondents relating to challenges and changes in the next five years.

[1] This summary has been provided by MPBA.

2 Methodology

An online survey was used to collate information provided by companies in the modular and portable buildings sector. The survey was carried out between January 2018 and March 2019. The questionnaire (Appendix A) included questions relating to company location, turnover and staffing following by questions related to specific segments of the sector: cabin hire, modular hire, new cabin sales, second-hand cabin sales, new modular building sales, and second-hand modular building sales. It concluded with a section on future challenges to the sector.

Our sample of 103 businesses is comprised of the following:

A. Members of the MPBA that responded to the survey (57)
B. Members of the MPBA who were invited by did not respond (34)
C. Companies not members of the MPBA that were invited but did not respond (12)

The response rate was therefore 57 out of 103 (55%). This is a respectable response for an online survey, but presents a challenge for research that aims to establish the size and composition of the sector as a whole. With this in mind, an approach was taken that involved reviewing the company accounts of all sample companies as filed at Companies House and, where available, utilising the filed data (turnover, number of employees etc) to add to that submitted by the responding companies. The survey responses and the public domain information were then used to establish an overall estimate of the sector.

In order to ensure a robust extrapolation of the available data the responding companies were firstly divided into three groups: small companies, large companies, and large companies with hire business only. Four very large companies were removed since, from knowledge of the sector, these were outliers that could skew the calculations. For each of these groups, averages were calculated for metrics such as turnover and number of employees. These averages were used to provide an estimate of the answers for non-responding businesses. The completed data, which combined actual and estimated answers, was used to estimate quantities for the whole sector.

An extra check was carried out to establish an accurate record of the sector's turnover, resulting in three separate estimates:

A. the turnover as provided in the survey, using averages from the three groups mentioned above to fill in non-responses (£1810 million);
B. the turnover where available as published (NB- published annual accounts for small businesses do not disclose turnover) in Companies House records (£2577 million);
C. a combination of A and B that uses in each case the larger of the turnover figures provided in the response, the averaged figure, or the figure from Companies House records (£2956 million).

The latter of these is assumed to be an upper estimate and is used in our results.

Finally, available metrics were required to identify the number of supply chain jobs that are reliant on the modular industry. Type 1 (direct and indirect) employment multipliers provided by ONS[2] were utilised. Whilst the sector is diverse, all the companies to some extent sell or hire cabins and modules. For the purposes of calculating an estimate the category 'Buying and selling, renting and operating of own or leased real estate, excluding imputed rent' with Full Time Equivalent (FTE) multiplier 2.98 was used. With our estimate that 12,542 people are employed directly in the sector, this implies that there are an additional 24,833 (12,542*1.98) jobs dependent on the sector .

[2] Office of National Statistics: https://www.ons.gov.uk/economy/nationalaccounts/supplyandusetables/adhocs/009746typeiukemploymentmultipliersandeffectsreferenceyear2015

3 The Sector

3.1 Survey Responses

Members of the MPBA that responded to the survey	57	55%
Members of the MPBA who were invited by did not respond	34	33%
Companies not members of the MPBA that were invited but did not respond	12	12%
Total Sample Size	103	

Trading locations (British Isles) of responding MPBA member companies

England	53
Wales	12
Scotland	7
Northern Ireland	5
Republic of Ireland	4

Respondents could select more than one location.

3.2 Turnover and Employment

Turnover of modular and portable buildings	£2956 million
Direct employees in the sector	12,542
Supply Chain employees (estimate)	24,833

3.3 Manufacturers and Manufacturing Locations

Manufacturing Companies	48	48% of Sample Companies
Manufacturing Locations		
England	37	77% of manufacturing companies have site(s) in England
Wales	3	6% of manufacturing companies
Scotland	1	2% of manufacturing companies
Northern	4	8% of manufacturing companies
Republic of	5	10% of manufacturing companies

This table includes MPBA members only. Some of the companies have sites in more than one country.

3.4 Hires and Sales

Cabin hire (new and used)					
Companies hiring cabins	64	companies	i.e.	62%	of the sample
Cabins in hire fleet	301,562	cabins			
Average annual utilisation of the hire fleet	242,242	cabins	i.e.	80%	of fleet
Construction cabin hires	175,127	cabins		72%	of annual hires
Non-construction cabin hires	67,030	cabins		28%	of annual hires
Modular building hire (new and used)					
Companies hiring new modular buildings	56	companies	i.e.	54%	of the sample
Modular fleet	54,781	modules			
Average utilisation of fleet on annual basis	42,495	modules	i.e.	78%	of subtotal
Modular hires started each year	6,240	hires			
Construction modular hires	17,546	hires		41%	of annual hires
Non-construction modular hires	24,948	hires		59%	of annual hires
Modular hires under 2 years	28,171	hires		66%	of annual hires
Modular hires 2 years or over	14,324	hires		34%	of annual hires

New cabin sales					
Companies selling new cabins	74	companies	i.e.	72%	of the sample
Cabins sold per annum	27,099	cabins			
Construction sales	19,545	cabins	i.e.	72%	of annual sales
Education sales	1,473	cabins		5%	of annual sales
Health sales	1,032	cabins		4%	of annual sales
Other sales	5,049	cabins		19%	of annual sales
Second hand cabin sales					
Companies selling used cabins	69	companies	i.e.	67%	of the sample
Used cabins sold per annum	15,301	cabins			
Construction sales	5,225	cabins	i.e.	34%	of annual sales
Education sales	1,601	cabins		10%	of annual sales
Health sales	400	cabins		3%	of annual sales
Other sales	8,075	cabins		53%	of annual sales
New modular buildings sales					
Companies selling new modular buildings	70	companies	i.e.	68%	of the sample
Modular buildings sold per year	3,636	buildings			
Individual modules sold per year	17,894	modules			
Construction sales	3,735	modules	i.e.	21%	of annual sales
Education sales	6,597	modules		37%	of annual sales
Health sales	1,708	modules		10%	of annual sales
Other sales	5,855	modules		33%	of annual sales
Used modular buildings sales					
Companies selling used modular buildings	45	companies	i.e.	44%	of the sample
Used modular building sales per annum	662	buildings			
Used module sales per annum	3,503	modules			
Construction sales	970	modules	i.e.	28%	of annual sales
Education sales	1,120	modules		32%	of annual sales
Health sales	219	modules		6%	of annual sales
Other sales	1,194	modules		34%	of annual sales

4 Challenges and Changes

In the following two sections respondents were invited to submit an answer in open, free text, form and it is therefore not appropriate to analyse them statistically. It is also the case that answers vary greatly, some referring to the industry in general terms and others making observations specific to a single business or a small part of the sector. The respondents were not asked to group them, but to make them easier to digest they have been grouped into approximate categories. The individual points are paraphrased.

4.1 Anticipated Challenges

Respondents were asked what they anticipate being the major challenges over the next five years.

Economic context

- Costs of labour, materials, transport, new manufactured buildings
- Financial challenges, including currency uncertainty and economic downturn
- Downturn in construction industry
- Increased manufacturing costs
- Leaving the EU, including related uncertainty, UK's handling of it, media coverage of it, and competition resulting from it,
- Managing resources during growth

Procedures and Regulations

- Regulations including fire, energy efficiency and health and safety, HIAB and crane operating regulations
- Framework procurement processes, including risk of being locked out
- International imports
- Moving from standard to eco cabins

Operational Issues

- Availability of space
- Capacity
- Availability of skilled labour
- Increased customer expectations of the specification of units
- Maintaining online visibility
- Working at height issues on site
- Supply of used materials and buildings
- IT infrastructure development

Industry

- Competition, including from larger nationwide companies
- Perceptions and lack of knowledge of industry, reluctance to embrace modular
- Failures of large construction companies
- Saturation
- Tier one and two companies creating in-house capacity
- Tier one and two companies not understanding process (e.g. how much must be complete pre-construction)
- Industry view on use of timber
- Standing out in a growing industry
- Potential shortages in the recruitment of steel

4.2 Anticipated Changes

Respondents were asked to identify any major changes they could foresee taking place in their company over the next five years.

Technical changes

- 3.5-ton trailer MOTS
- Battery innovation
- BIM accreditation and implementation
- Improvement in use of technology
- New vehicle purchases
- Opportunities aligned with greater computer-generated animation
- 'Simplifying what we do'

Premises

- Additional factory space
- Bigger depot
- Building more new units
- Extending and improving facilities
- Moving premises / new site
- Opening new premises
- Possible overseas premises
- Purchase of existing leasehold property

Market

- Changing customer base
- Development of offsite residential housing sector
- Expanding in to hire sector
- Growth / expansion
- Increase turnover
- More investment
- Trying to maintain enquiry levels

Context

- Changing legislation
- Changing specification due to green issues
- Changing specification due to the Grenfell fire

Businesses

- Employee ownership
- Increase in hire fleet
- Updating stock
- Manufacturing more new builds
- New operational focus
- New product development to meet market demands
- Partnering with off-site manufacturing
- Purchase own HIAB
- Pushing modular division harder
- Rebranding
- Reducing modular production
- Shift to residential sector
- Sourcing own transportation fleet

Staffing

- Targeted training for specific job functions
- Loss of key personnel (e.g. retiring long-term employees)
- Management restructure
- Workforce upskilling