2019-3

Standardisation in Construction Cost Control

Charles Mitchell
*Technological University Dublin*, charles.mitchell@tudublin.ie

Follow this and additional works at: [https://arrow.tudublin.ie/beschreoth](https://arrow.tudublin.ie/beschreoth)

Part of the Business Commons, Engineering Education Commons, Other Engineering Commons, and the Risk Analysis Commons

**Recommended Citation**


This Other is brought to you for free and open access by the School of Surveying and Construction Management at ARROW@TU Dublin. It has been accepted for inclusion in Other Resources by an authorized administrator of ARROW@TU Dublin. For more information, please contact yvonne.desmond@tudublin.ie, arrow.admin@tudublin.ie, brian.widdis@tudublin.ie.

This work is licensed under a Creative Commons Attribution-Noncommercial-Share Alike 3.0 License
Standardisation in Construction Cost Control
(A Method of Approach)

C. Mitchell
charles.mitchell@dit.ie

The Construction Sector

The construction sector consists of the on-site construction assembly including repair maintenance works. This includes the site preparation, construction of all building structures and infrastructure up to and including building decoration. This also includes the supply chain of construction related products and raw materials. Furthermore the definition also includes the professional services such as management, design and facilities management.

The Origin of the Quantity Surveyor

The quantity surveying profession came into existence in the late 18th century due to the increase in building works design and facilities management. This also includes the supply chain of construction related products and raw materials. Furthermore the definition also includes the professional services such as management, design and facilities management.

Cost Control in Construction

More recently the quantity surveyor has been recognised for the profession’s role in costs management. The role falls to different professions depending on the country and type of project. Organisations such as the Construction Economists of the European Union (CEEC) recognise the “cost engineer” and “construction economist” in this function also.

Use of Bills of Quantities (BoQ)

Various formats for BoQ exist dependent on industry sector and geographical location. The function however is the same world wide – to provide a uniform means for pricing the works by all tendering parties.

Elemental Standards for Cost Control in Construction

In the 1970s cost planning came to prominence. It was seen as an attempt to introduce more rigour and accuracy in the pre-cost contract process. At roughly the same time the Irish Government introduced the National Standard of Building Elements and Cost Control Procedures. However, nearly 40 years later research, by BCIS (2009), shows 50% of countries surveyed not having a published elemental standard or using “ad-hoc” or “foreign” standards. No common expression for cost per M² existed in terms of cost definition and floor area. The level of cost information and data classification falls short of what many professionals would welcome in many countries.

Construction as a measure of Economic Growth

Records from the Central Statistics office (CSO) show that since 2015 that the Irish Gross National Product has increased and with it the gross value of construction output. As seen in the Production Value Index for Ireland – Source CSO (2019)

The need for a Global Standard


The International Construction Measurement Standards (ICMS)

No one single method of measurement is used by those responsible for the preparation or recording of construction costs. The standard methods of measurement are generally used in the compilation of BoQ. Currently more than 45 professional bodies form the ICMS Coalition. The Standard Setting Committee of the ICMS are responsible for the development of the new International Cost measurement Standard. The first edition was published in 2017. The 2nd Edition is currently in public consultation and addresses Life Cycle Costing. The 3rd Edition will look at integrating Building information Modelling (BIM) into ICMS.

<table>
<thead>
<tr>
<th>Category</th>
<th>Q1 2017</th>
<th>Q2 2017</th>
<th>Q3 2017</th>
<th>Q4 2017</th>
<th>Q1 2018</th>
<th>Q2 2018</th>
<th>Q3 2018</th>
<th>Q4 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>All building and construction</td>
<td>125.5</td>
<td>149.0</td>
<td>162.8</td>
<td>170.4</td>
<td>148.6</td>
<td>181.7</td>
<td>197.3</td>
<td></td>
</tr>
<tr>
<td>Building (excluding civil engineering)</td>
<td>148.3</td>
<td>173.4</td>
<td>190.6</td>
<td>196.7</td>
<td>172.2</td>
<td>217.6</td>
<td>216.4</td>
<td></td>
</tr>
<tr>
<td>Residential building</td>
<td>152.1</td>
<td>180.2</td>
<td>212.8</td>
<td>207.8</td>
<td>187.4</td>
<td>238.6</td>
<td>258.3</td>
<td></td>
</tr>
<tr>
<td>Non-residential building</td>
<td>140.5</td>
<td>160.5</td>
<td>166.5</td>
<td>187.0</td>
<td>152.2</td>
<td>199.3</td>
<td>203.1</td>
<td></td>
</tr>
<tr>
<td>Civil engineering</td>
<td>82.3</td>
<td>135.5</td>
<td>117.9</td>
<td>121.2</td>
<td>95.6</td>
<td>112.5</td>
<td>154.4</td>
<td></td>
</tr>
</tbody>
</table>