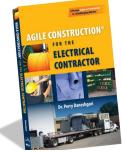


Making Productivity Visible to Everyo



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State of the Industry

Observations, trends and information for the construction industry

October 2017

Welcome to our Second State of the Industry report of 2017. Please let us know what you think by sending us a quick email—click <u>HERE</u>. Read past State of The Industry Reports , <u>Click HERE</u>.

Cost of Complacency:

Every project manager, manager, and owner of a business has most like heard one or both of these statements:

"I still think we can make it up"

"I'm holding back just in case something goes wrong"

Both have equally negative consequences for a business trying to plan its finances including cash flow and investment in resources. MCA's processes, training, and tools have been used over the past two decades to avoid these consequences. However, we still find that despite a project showing worry-some signals early on, the project team still allows complacency to sit in and "wait it out." This has led us to conduct a forensic analysis of what we are calling the "Cost of Complacency." We analyzed several projects where the Agile Tools were showing signs that the project is in trouble, and what the potential savings would have been on the project if the project team would have reacted and responded sooner. **Figure I** shows a symptom of this behavior, where the end of job gross profit gains or fades by 5 times in the last 5-10% complete. The tools of JPAC[®] & SIS[®] move predictability up sooner in projects, but the signals that are sent need response as soon as they are visible. **Figure 2** shows one case example of the Cost of Complacency.

The project in Figure 2 had an estimated labor cost of \$278K. JPAC[®] predicted over budget labor costs of \$43K as early on as 8 - 10 weeks into the project (point B). The job continued to run for another 7 months with no corrective measures put in place, to try and recover the predicted over budget labor costs. At 10 months (point C) JPAC[®] predicted over budget labor costs of \$47K. Now in the last remaining months of

Volume 5 Issue 2



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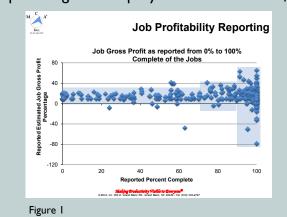
July 5th & 6th, 2018 -Idaho

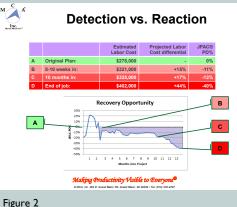
For more information or to register <u>click here</u>

Cost of Complacency Cont.:

the project without corrective measures instituted, recovery becomes more difficult. In the end, labor cost exceeded the budgeted labor costs by \$124K or 2,118 hours.

The additional labor on this project could have been committed to the next project providing the company with an additional \$400K in revenue.





As we can see from the example above, simply sticking your head in the sand and waiting to see how the job unfolds can literally bring a company to its knees. By monitoring projects with feedback from the source, and proactively implementing corrective measures companies can turn around killer jobs and bring in higher margins on already profitable ones.

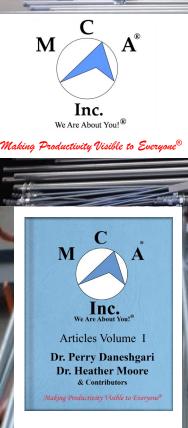
GC & Owners Buying Material directly and its impact on contractors and suppliers: Study for ELECTRI International



In February MCA began conducting research for ELECTRI International focusing on the latest trend of disruption within the industry and to prove that the actual value transfer to the end customers of construction is higher when the subcontractor purchases and manages the material required for construction. The study was based on a follow up to the original study conducted by <u>MCA in 2003</u> where in the original results concluded that:

- General Contractors cannot provide the owner with lower costs that could be achieved in other procurement methods.
- General Contractors can procure equipment earlier in the project. However, this may cause lost time later in the process due to a lack of expertise

• General Contractors cannot provide a wider product selection to the owner. MCA began the current research project by conducting a series of interviews with individuals from different aspects of the industry, participants ranged from Electrical



Complimentary EBOOKS!

These ebooks are packed full of Agile Construction[®] related

articles on...

- Transformation
- Productivity
- Profitability
- Process
- Procedures
- Tools
- Measurements

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to download.



GC & Owners Buying Material directly and its impact on contractors and suppliers: Study for ELECTRI International Cont.: Contractors, General Contractors, Distributors, Manufacturers, and Manufacturer Representatives. A sneak peek at high level findings revealed that <u>someone has to</u> <u>pay for the risk of manipulation by labor for final installation at the jobsite.</u> MCA is finalizing the monetization of various models for recovering this risk that take into account the time, cost, and quality of the final usage of the construction outcomes.

The preliminary research results of this research will be presented at the NECA Convention in Seattle October 7 - 10.

CEO Forum:

Founded and chaired by Dr. Perry last April in Chicago, IL this was the first conference held by industry leaders representing contractors, distributors, and manufacturers across all trades in the construction industry establishing the framework to predict, prepare,



Enabling CEO's to Function and Disrupt the Status Quo

and adopt disruptive business models for the industry. The CEO Forum Steering Committee, are preparing to establish an online presence for Forum topics and interest-building. Some of the topics listed below are on the docket. More information will be published in the next SOTI on accessibility to this Forum.

On-line Forum Topics

- Measurements
- Tools
- Environment
 - Disruption
 - Other Industry Examples
 - Demographic Projections
 - Union vs Non-Union
 - Regulations / Standards / Codes
- Process
 - Commoditization Based on Data
 - Mass Production
- People
 - Education
 - Generation changes and roles distributors can play
- Electrical/niche opportunities
- Owner's GC's true end user; creating a channel for feedback loop for them

Steering Committee:

David Hardt

Bob Bruce Skip Perley

Wes Smith

Steve Rivi

Mike Holmes

Steve Stone

Dr. Perry Daneshgari

Dr. Heather Moore



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Market Analysis for Strategic Planning:

2017 is in the final stretch and with only a couple of months remaining before the market slows down for the season. How would you like to know where you stand in your market right now, and to be able to project to where you want to be next year? Our methodology for market size and share measurement is based on over a decade of research conducted on hundreds of market studies, and is a measure of the final Construction Put in Place as the dollars spent by end users. This allows it to be the most comprehensive view of the work available in any segment or geography. Below is a listing of the nature of studies we can conduct:

- Market size and share down to the county or jurisdictional level, trended back for 10+ years
- Market segmentation into Industrial, Commercial, and Residential
- Detailed analysis of type of work categories such as multi-retail, office, healthcare, etc.
- Calculation and projection of impact of current or future "mega projects"
- Dissection of the local competitive composite crew rate

These studies can be used for any of the following purposes:

- Knowing where your opportunities are for penetration and building strength
- · Developing a strategic plan to sustain and expand markets
- Knowing where the competition is in any given market segment

Update on the Mission: Agile Construction[®] Contractors Moving Ahead:

Mayer Electric Supply

Picking up where we left off with Wes Smith over ten years ago, MCA is conducting a thorough assessment to help Mayer more effectively deliver its current value-added services, and prepare for the next Generation of distribution.

Staff Electric

Staff has put one of the most aggressive efforts toward full Agile Construction[®] implementation that we have seen. They are establishing all four legs (JPAC[®], SIS[®], prefab, and true Vendor Partnership), as well as a company-wide infrastructure including design teams to build the processes needed to support Agile. They have selected their first Agile Department team member, whom MCA is training one-on-one, and have laid groundwork for expansion and success in a full day Strategic Planning session where executives focused on their responsibilities and duties to run the business as it grows.



ELECTRI International has released the first, second,







and third book in a series of four books on topics pertaining to the Industrialization of the of the Construction Industry.

MCA Inc., under the leadership of Dr. Perry Daneshgari, President/CEO, is producing

this series for ELECTRI. The three subsequent texts will include Benefits from Globalization & Industrialization, Foundation and Future, and Efficiency and Continuous Improvement. These will be produced and released over the next 1-2 years.

For more info Click here.

Contractors Moving Ahead Cont.:

Werner Electric Supply

Piloting new jobs and building a collective Process of Procurement with Staff Electric as a true partner. Werner has committed from top to bottom of the organization in building a partnership relationship with Staff to reduce the structural cost of both businesses.

Graybar Chicago District

Expanding on the focused effort over the past couple of years in Glendale Heights, the Milwaukee branch has formed teams to learn how to support a full partnership such as the one with Staff. The Chicago District staff continues to formalize and embed the Graybar Business System across the District, with the customer and market pull at the forefront of its efforts.

ConneXion

After months of preparation, ConneXion is preparing to unveil its offerings for packaged and optimized service offerings. MCA has worked with their operational team to prepare their facility and processes for a significant influx of requests from customers for project services and solutions.

Aldridge

After 3 years of hard work on learning, applying, and scaling the Agile Construction[®] principles, Tobias Hogan is preparing to follow the company's strategic direction for adding depth to the usage of JPAC[®] & SIS[®] across divisions and projects, leading education sessions for managers across the company to sharpen their usage and understanding of how to use the data.

At the same time, the Executives are leading efforts within their divisions and company-wide for increased and expanded analysis of job performance. With three years of data under their belt, the work has never been as visible companywide. The next challenge is what to do with the data company-wide.

The following Practitioners are independently using Agile Principles and Tools (JPAC[®] & SIS[®]) to manage their projects and companies.

- Bronco Electric
- Holmes Electric
- Taylor Electric
- Hardt Electric

- CullitonF.B. Harding Inc.
- LiveWire Electrical Systems Inc.

Research & Education

The Bakersfield JATC Is launching a new training programs aimed entirely at introducing new apprentices to Agile Construction principles and applications from the very start of their career.

The Chesapeake, VA Chapter of IEC Is preparing to introduce and launch expanded education and applications of Agile Construction principles through collaboration with MCA to provide workshops to their member businesses up and down the eastern seaboard

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<u>Calendar of Events:</u> <u>Web Based Training:</u>

MCA is proud to announce that we have web based training available to all our clients. This offers participants the benefit of reduced training costs, greater flexibility in training schedules, and a greater variety of courses to choose from:

> JPAC[®] & SIS[®] mini classes Tuesday's- SIS[®] Mini-Classes @ 10 & 10:15am EST Wednesday's- SIS[®] Mini-Classes @ 9 & 11am EST Thursday's- JPAC[®] Mini-Classes @ 3pm EST

Register here... http://www.mca.net/Complimentary-Mini-Class-Registration-Page

•Web based Agile Classes: Call MCA for Details •Web Based Design Teams: Call MCA for Details

•Web Based Project Management courses: *Call MCA for Details* Upcoming MCA, Inc. events and engagement can always be found on our website.

www.mca.net or www.mca-soft.net

MCA's Agile Construction[®] Workshops — Across the Country:

Agile Construction[®] is coming to a town near you! MCA is conducting Agile Construction[®] classes at various locations across the United States and Canada. This is a great opportunity to see first-hand on what Agile Construction[®] can do for you and your company. In 2018 MCA will be expanding some of their Agile classes to their more advanced 200 series. For more information and/or to register <u>click here</u>, or contact Dan Waltz at <u>dwaltz@mca.net</u>

Agile Classes on the Road...

October 4th & 5th, 2017 – Seattle, Washington: October 18th & 19th, 2017 – GBE Northern California October 20th & 21st, 2017 – Bakersfield, CA November 9th & 10th, 2017 – Northbrook, Illinois—201 Agile Workshop January 24th & 25th, 2018 – Las Vegas February 21st & 22nd, 2018 - Denver, Colorado March 14th & 15th, 2018 - Dallas, Texas April 26th & 27th, 2018 - Northbrook, Illinois May 23rd & 24th, 2018 - Indianapolis, Indiana June 20th & 21st, 2018 - New Jersey July 5th & 6th, 2018 - Idaho



Calendar of Events Cont.:

Specialty Classes...

October 6th - Seattle, Washington – Practitioners Review, Seattle, Washington October 9th – Procurement Chain Disruption: NECA Convention,

Seattle, Washington

- October 10th Train Your Accountant to Become a CFO: NECA Convention, Seattle, Washington
- October 26th Market Shift in the Electrical Construction Industry: King of Prussia, PA: NECA
- October 27th Work Breakdown Structure (WBS): IEC Convention: Phoenix, AZ
- November 16th Operation Model for Maximizing Profitability Twin Falls, ID: NECA
- December 1st Project Scheduling & Time Management Made Easy: Minneapolis, MN: NECA



For up-to-date class information visit our website at... <u>http://www.mca.net/events/upcoming-classes/</u> Register for our Agile Classes at <u>https://mca-soft.com/classes/</u>

Recent Published Articles by MCA:

The following articles have recently been published in Insights Magazine.

- Contracting is a Great Small Business.....Insight Magazine 2017
- Robots: The Next Wave!.....Insight Magazine 2017
- Winds of Change and the Event Horizon......Insight Magazine 2017

For a complete listing visit <u>http://mca.net/resources/publications/</u>

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Watch Training

Videos here!



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Recent Publications:

Avoiding Killer Jobs with Better Accuracy - "Killer jobs," we've all heard of them, or maybe even been unfortunate enough to have been involved in one. It's these jobs that can single-handedly make the difference in a year-end profit or detrimental loss. And most result in tarnished relationships with employees, customers, and vendors. Sometimes bringing companies to their knees. <u>Click here</u>.

Partnering with Electrical Distributors for Improved Efficiency - Industrialization begins with management of labor and work, including identifying who should do what, when, and where. In other words, it doesn't all have to be done on site as the schedule suggests. Using vendors to support the work — not just sell material — is one way to accomplish this. <u>Click here</u>.

MCA Articles Vol I & II Ebook - Agile Construction[®] related articles on Transformation, Productivity, Profitability, Process, Procedures and Tools, and Measurements. <u>Click here</u>.

Prefabrication Increases Productivity - Prefabrication is really a misnomer for what is happing in the industry. It's not prefabrication that is happening, but rather separation of production from installation. Most find there's no longer a choice to participate in productivity improving activities to improve time, cost and quality of the construction project delivery. <u>Click here</u>.

Organizational Transformation Through Improved Employee Engagement – The purpose of this paper is to help businesses understand that as markets change, the way a company does business also must change to stay competitive in their industry. <u>Click here</u>.

The Winds of Change and The Event Horizon -

The "Winds of Change" is a discussion surrounding Agile Construction[®], and specifically leadership of an Agile business. Agile is a business model that is capable of adaptation to meet changing needs, both in the short term and in the long term. Short-term Agility surrounds the needs to recognize and meet the needs of customers and vendors at the project, division, and overall business levels, while still maximizing the available profit opportunity. <u>Click here.</u>

All publications can be found on MCA's website. Click here.

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Agile Construction[®] For The Electrical Contractor

> by Dr. Perry Daneshgari

\$55.95 Get your copy today!

> For more information <u>click here.</u>



Industrialization of Construction[®] Books







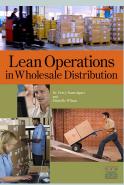
Book #1: Competing in the New Construction Environment: A Compilation to Lead the Way — <u>Click here</u>. Book #2: Industrialization of Construction: A Compilation to Lead the Way

— <u>Click here</u>

Book #3: Foundation and Future: Dealing with the Challenges of More Work
— <u>Click here</u>

Book #4: Efficiency and Continuous Improvement: Survival of the Unfits: — Publication release date: Fall 2017

The Chase - The Chase is a business novel, which is based on a real case study. Its intended audience included the general public, management and administrators, students and teachers in business and engineering schools, and consultant practitioner. This book is unique because it targets the product development aspect of the product productions process. <u>Click here</u>.



Lean Operations in Wholesale Distribution - Becoming lean in wholesale distribution is more important than ever in today's challenging economic market. Applying lean concepts makes sense because becoming lean means becoming a more effective distributor. And becoming lean will lead to higher profitability. This book discusses the steps distributors must take to design and manage a lean culture. It deals with one lucrative area:

Operations, which includes all aspects of the order processing system-from the time you seek an order, to order entry, and all the way through to delivery of products and services. Apply the tools and techniques in this book to your company so that it will operate with minimal waste and few errors, while at the same time meet your primary goal of adding value to the products and services you provide. <u>Click here</u>.

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Testimonials & Customer Results

Cupertino Electric

"This is a great publication that I would like to review with our PM's and superintendents. It speaks to much of what I have been pushing over the past couple years but in more eloquent detail. " (in reference to Book Two --Operational Model Needed to Compete in Industrialized Construction, written by MCA for Electri International)

Rob Thome, Vice President of Operations, Cupertino Electric, Inc.

Oregon Columbia - Chapter of NECA

"On August 17th, 2017, Dr. Perry Daneshgari of MCA, Inc. traveled to Oregon to hold a Design for Value Engineering to Increase Job Profit Workshop for Oregon Columbia - Chapter of NECA. The primary goal was to provide an overview of ways that you can identify and reduce applicable risk early on in the project start up. The students ranging from Project Managers, to VP's, to CEO's all strongly agreed that the topic presented was spot-on and exceeded all expectations. All the participants left with a new mindset, and were looking forward to additional classes on similar topics."

Minneapolis - Chapter of NECA

"After my guys attended Dr. Heather's class "How to Compete in Large Cities & Win Back Markets" they came back enthusiastic and couldn't stop talking about the class and the information presented."

Steve Grubish - Director Of Support Operations Egan Company