

# Scope Creep in Construction Industry of Saudi Arabia

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**Abstract**—Construction is a highly dynamic process. It is continuously conditioned by the interplay of both the internal as well as the external environment. Given so, it is only logical to expect perpetual changes and alterations within the ambit of the project scope in order to fit in the newly emerged demands. These changes can even be in the form of slow and unauthorized ones without concomitant changes in the other factors of the project such as budget and deadlines. This has been referred to as the phenomenon of scope creep. This work would specifically try to study and analyze the phenomenon at length in order to make sense of its real nature instead of banishing it out rightly as a boon or a bane. Elucidation of the possible causes, repercussions and tentative recommendations for dealing with the phenomenon has been sought to be unearthed through research conducted via the survey method. This study involved the use of a pre-formulated questionnaire administered to 50 respondents from the construction companies itself, in order to ascertain the views of individuals who are involved in the process, in real time. Given the limits of stretching the resources beyond a point, this research has focused upon deducing the perceptions of a limited number of individuals, randomly chosen from ten construction companies in and around the vicinity of Riyadh.

## I. DEFINITION AND CONCEPTUAL BACKGROUND

As the work specifically deals with the phenomenon of scope creep as it operates within the ambit of the construction industry, it is extremely important to indulge in a thorough conceptualization of the same given the fact that the technical nature of the term can be responsible for producing a lot of vagueness.

Scope creep has been differently defined by various authors and commentators. While some have been out rightly cynical of the process wherein they regard scope creep as essentially a negative process which results from slow and unofficial changes made to the scope of the project without consideration for concomitant changes to other factors like the budget or the deadline [1] and thus resulting in cost overruns and project failures, some others have perhaps avoided such extremities and regarded it as the uncontrollable and unpredictable changes in the expectations of the project stakeholders and its requirements as the project proceeds [2].

While trying to explicate the true nature of the term, it would be worthwhile to highlight certain pitfalls which may shroud the reader's perception with respect to the phenomenon. It would be vital to distinguish scope creep from two other related terms, namely, scope change and gold plating. Scope change is a consensual decision with respect to the introduction of a change feature or functionality, which is arrived at jointly, by the parties involved in a project. In contrast, in scope creep there is an outgrowth or change in scope of the project which occurs gradually and most importantly, unofficially which renders it extremely difficult to trace the exact cause and accountability for the change brought about. Secondly, while differentiating scope creep

from gold plating it would be worthwhile to remember that in case of the former the changes which accrue are mostly the result of new demands made by the client or the stakeholder (however, it may also include changes initiated by the team itself), in case of the latter it is always the seller who introduces certain new features with the assumption that it will prove to be beneficial for and will in way be appreciated by the customers [3].

## II. INTRODUCTION

Project scope entails the idea of the “sum total of all the activities that needs to be performed in order to achieve the pre-determined goals of the project” [4]. Thus the fulfillment of the scope is an important criterion on which is contingent the possibility of achieving the right results. This scope would involve a meticulous maintenance of deadlines and schedules and in fact a failure to manage it has the potential of dismantling the entire structure of the project [5]. Though the scope of the project sets the boundaries of a project manager's responsibilities, even then, it would be quite naïve to assume that scope remains static and unchangeable. Thus, the idea of scope change management becomes important, given the fact that changes may be desirable, however, if not managed properly can result in lethal consequences.

In this context, the notion of scope creep assumes massive proportions. They are mostly unplanned which when allowed an unrestrained existence, has the potential to swiftly exhaust a project's technological, financial and human resources. Given the enormity of the issue, it is only logical to undertake an intensive analysis of the topic for making sense of the possible repercussions of such unplanned and unauthorized changes. Thus the research question was accordingly framed as: how is scope creep perceived within the purview of construction industry in Saudi Arabia? It was sought to be framed in as neutral a manner as possible in order to avoid the dangers of falling prey to the illusion of a sweeping generalization.

## III. SURVEY

In order to attain the objective of the study, the method of survey research based on a pre-framed questionnaire was used. The questionnaire incorporated a set of close-ended questions providing the respondents with a fixed set of responses from which they would have to choose.

The questionnaire was administered to fifty individuals (N=50) who were chosen from ten construction companies in and around the vicinity of Riyadh. These individuals were chosen through the method of random sampling. The sample comprised of an admixture of individuals from both the program department as well as the support department. The

program department would comprise of individuals like the project managers, evaluation and monitoring officers, while the support department would include those who carry out their activities for the successful completion of the project, like finance and administration.

The questionnaire was divided into four parts: personal information of the respondents, the knowledge of the respondents pertaining to the concept of scope creep, the causes of the same and the possible ramifications of the phenomenon.

IV. RESULTS AND FINDINGS

The data so collected pointed at certain fascinating facts. While it was quite a respite to know that fact that almost 88% of the respondents positively responded that they do possess a clear understanding of the term, the pervasiveness of the issue can be gauged from the fact that almost 96% of them replied that they have had experiences of scope creep.

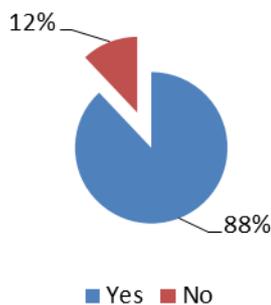


Fig. 1. (Question IV): Indicates the percentage of individuals who affirmed that they have a clear understanding of the term 'scope creep'. Source: Primary data.

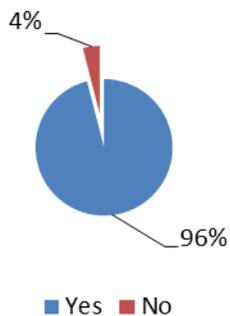


Fig. 2. (Question VI): Indicates the percentage of individuals who have had experience of scope creep in construction projects. Source: Primary data.

Moreover, since the work is specifically concerned with the construction industry in Saudi Arabia, the views of the respondents were sought to be ascertained vis-à-vis the barriers which they feel, are confronted by the construction companies in the given context. Accordingly, 54% believe that difficulty in cash inflow is one of the most important barrier, 24% felt that it was the harsh reality of low profit margin which has acted as a deterrent for the contractors, while 22% believed that national downturns in the economy has accounted for a negative effect on the construction industry. Subsequently, the respondents were questioned on

their views pertaining to the most important cause of scope creep. An overwhelming number of 58% of the respondents believed that lack of clarity and precision in the original specification document was the most important cause of scope creep. This was followed by 20% who believed that is client demand which is the most pertinent cause, 14% held that the process of value-adding change, in the form of gold plating was responsible while 8% advocated that scope creep was a direct fallout of new regulations imposed by an external agency.

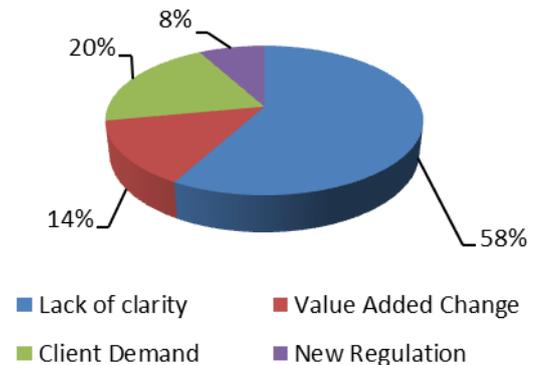


Fig. 3. (Question X): Indicates the views of the respondents pertaining to the most important cause of scope creep in the construction industry. Source: Primary data.

The impact of scope creep is equally important and in fact more as compared to the cause of the same. In this arena, the scales were clearly tilted in favor of an extremely negative view of scope creep with almost 38 of the respondents, disagreeing with the fact that scope creep an ever be a good thing. The view that it can possibly be a good thing depending upon the situation was represented by a miniscule proportion of 12 respondents. Moreover, this minority view was in terms of the fact that scope creep can be a good thing in situations when the contractor has all the possibility of utilizing it for providing certain exceptional service to the customer, thus bolstering their position. Hence, the financial implications get transformed into a form of a business investment which might result in increased revenues in future. Thus, given the fact that long term benefits outweigh the short term costs, some of the respondents accented to the fact that scope creep can be a good thing. On the other hand, those who ascribed to a largely negative view of the phenomenon advocated that stakeholder involvement, participation of the clients in the planning stage itself as well as a holistic Work Breakdown Structure with a clear demarcation work for each phase can be the best antidote to the issue of scope creep.

Scope creep was essentially associated with a number of negative impacts upon the project. This may involve an extension of the project schedule, an adversarial impact upon labor productivity, increase in project cost vis-à-vis the development cost (it was held to result in low returns on investment, high sustenance costs and incremental losses), [6] project delays [7] which also shoots up cost and additionally high material wastage and compromise on project quality

effects, have all been associated with scope creep [8]. Thus, given the beliefs pertaining to the negative effects of scope creep, a number of recommendations were suggested for dealing with the situation. It would be worthwhile to take note of the fact that these suggestions can be looked at through a dual trope of preliminary steps for ensuring effective scope management and mitigation of the adversarial impact of scope creep. This is vital in the sense that the former pertains to certain precautionary measures which the manager may take even before the project commences in order to be forearmed, however, from sheer hindsight the managers are well aware of the fact that change is inevitable and that it can result in both positive as well as negative repercussions. Thus, since it is often difficult to bluntly demarcate the unofficial and unauthorized changes from the approved one, it would be crucial for the manager to adopt certain precautionary measures when proposals for change do emerge.

Some of the preliminary steps put forth are:

- The manager should have a precise understanding of the outcome of the project: this would involve having a clear understanding of the demand of the client as well as ensuring that the demand is stated in as nuanced and intricate a manner as possible [9].
- To be critical of the client's ideas: this does not imply rejection of the views of the clients but there should be a collaborative strategy wherein the service provider should work 'along with' the client to lay down the exact desired outcomes [10].
- Clearly defining the scope of the work: the work that is to be carried out should be unambiguously stated in the contract and the manager should make sure that the client has read the scope and is in fact aware of all that is a part of the contract and what falls outside its purview [10].

The mitigation measures would involve:

- Ensuring the availability of a contingency fund: this would be vital to cover the cost of change or procuring the additional funds through the project sponsor or the client himself.
- Reviewing the change proposal: the manager should undertake the crucial responsibility of analyzing the feasibility or otherwise of change proposals as well as its possible impact upon different factors like the process, project, quality, product, organization as well as the stakeholders.
- Concern for schedule: this would involve making estimations with respect to the time which would be tentatively required to implement the proposed changes. This is vital since schedule is directly linked to scope and cost and these estimations would involve consideration for project management schedules, milestone lists as well as contractual schedules.
- Identification of dependencies: this would involve recognition of various tasks which are dependent upon the change and a determination of the predecessor relationship as well as the prioritization of the tasks that would be needed to be completed before the change is implemented.
- Analysis of risk: this would involve a qualitative as well as a quantitative analysis of all possible challenges as well as

threats is extremely crucial as even a small change has the potential of inducing a high amount of risk.

What has been quite clear from the even a superficial glance at the data collected, is the fact that there is an overwhelming disgust with the phenomenon of scope creep. This theme runs as a common thread through most of the existing work on the topic. There have been research scholars who have completely debunked the idea of allowing for any kind of room for scope creep viewing it as something not liable to be feared but in fact completely annihilated and removed from the equation [10]. However, the endeavor of this work has been to provide a balanced understanding of the topic and while elucidating the overarching inclination to denounce scope creep as necessarily bad it was equally important to take into account certain diverging opinions which believed that failure to avail the opportunity which scope creep provides is reflective of a vital missed opportunity.

Some believe that any attempt to suppress scope creep can be seen as an act of repressing the voice of change and the failure of alignment. Resisting scope creep can also be seen as resulting in the disruption of the rapport which was so carefully construed with the users at the beginning of the project. While there is no denying the fact that scope creep has a number of disadvantages in the form of delays, projects failures, cost overruns and others, still many try to unearth certain positive elements of the same. Among these factors, a very significant argument is in terms of the fact that scope creep results in greater customer satisfaction as they are often able to extricate more than what was originally a part of the project. Moreover, this is advantageous from the perspective of the companies as well because it helps them to retain the customers as well as the project management team is also accorded an opportunity to re-evaluate its internal processes which would help it to avoid the same mistakes in future [11].

In the last instance, one could perhaps look at the phenomenon through another angle. This is in terms of the fact that the issue of scope creep may itself be manipulated to cater to vested interests. This can happen when shrewd and dishonest project managers pass off even legitimate requirements as manifestations of scope creep. This helps them in grabbing opportunities in which they are able to siphon off extra budget to their own coffers, while all along piling up excuses for failures. Certain researchers believe that it is certainly possible to visualize scope creep in a positive light as an entity which is perhaps continuously engaged in an endeavor for perfecting and improving things. When the project loses touch with its requirements, scope creep appears as an intervening factor meant to put things right [12].

## V. CONCLUSION

It is quite clear from the given literature that the issue of scope creep is certainly pervasive. To the extent that it speaks to the notion of change, it becomes inevitable. Thus, the concept of project scope management assumes magnanimous proportions. It refers to "the work that needs to be accomplished to deliver a product, service, or result with the specified features and functions." [13]

Thus in lieu of the primary data collected through survey research as well as secondary ones obtained through the exiting literature on the topic, it is quite clear that the logic behind leashing out a verdict pertaining to the phenomenon of scope creep as necessarily good or bad is definitely circumstantial. Something which threatens the very structure of the project should definitely be renounced; however, things are not always as lucid and simple as they appear to be. This is because the additional workload which changes in the scope of the project entails, often dissuades managers from being extremely receptive to the possibilities of change. Any situation of scope change (authorized or otherwise) demands extraordinary skills of management and an inability to provide that do not necessarily indicate the fact that the phenomenon in itself is to be blamed. Sometimes unplanned and accidental changes can prove to be extremely resourceful in the long run. Thus, it can undeniably be asserted that perhaps the more vital issue at stake is the question of the extent or degree to which changes are acceptable and permissible to be incorporated within the scope of a project.

VI. LIMITATIONS

- Since the work has been limited to a specific number of industries, it has not been able to produce a comprehensive picture. Moreover, most of the causes and suggestions which have been put forth in this work can be traced to some other context and not Saudi Arabia in particular.
- Given the fact that the work utilizes the method of survey research via a questionnaire to elicit information, it gets restricted to the queries raised by the researcher in the questionnaire.
- Given the technicality of the issue at hand, certain questions may appear to be complicated for an average individual. Moreover, unlike face-to-face interview, since there is no possibility for the researcher to explain his stance, it may give rise to misinterpretations and hence emergence of extremely subjective rather than objective view-points.

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QUESTIONNAIRE

Note: Please tick one of the responses.

Personal Information

- I. Please tick the number which represents your years of experience.
- 1 2 3 4 5 (Graduate).
  - 6 7 8 9 10 (Intermediate)
  - 11 12 13 14 15 (Advanced)
  - 16+ (Expert)
- II. What is your highest qualification?
- Bachelors
  - Masters
  - PhD
  - Others
- III. Do you hold a formal project management qualification?
- Yes
  - No

Concept of Scope Creep

- IV. Do you have a clear understanding of the term 'scope creep' as it operates within the construction industry?
- Yes
  - No
- V. How will you differentiate scope creep from scope change?
- Both scope creep and scope change is same.
  - Scoop creep can be regarded as a means of controlling scope change.
  - Scoop creep takes place when the original intended scope of a project slowly expands beyond given limits.
- VI. Did you ever have any experience of scope creep within a construction project?
- Yes

- No
- VII. Do you agree with the statement that it is important to protect the project scope?
  - Yes
  - No
- VIII. Do you think that scope control and management faces a lot of barriers in construction industry?
  - Yes
  - No
- IX. What according to you is the most important factor which has adversely affected the construction industry in Saudi Arabia?
  - Low profit margin
  - Difficulty in cash inflow
  - National downturns in the economy

Causes of Scope Creep

- X. What do you think is the most important cause of scope creep in a construction project?
  - Lack of clarity and precision in the original specification document
  - Value-adding change
  - Client demand
  - A new regulation imposed by an external agency.

Read question XI and consider the following prompts.

- XI. In case there is a need to change the project scope, what are the ways that the project managers use, to control or manage this change process?
  - a. They fill a scope change request form.
    - Strongly Agree
    - Agree
    - Neutral
    - Disagree
    - Strongly Disagree
  - b. They document and justify the reason for the scope change.
    - Strongly Agree
    - Agree
    - Neutral
    - Disagree
    - Strongly Disagree
  - c. They review the request for change.
    - Strongly Agree
    - Agree
    - Neutral
    - Disagree
    - Strongly Disagree
  - d. They approve the request.
    - Strongly Agree

- Agree
- Neutral
- Disagree
- Strongly Disagree
- XII. What do you think can be the most crucial challenge which may arise in the process of managing scope change?
  - Escalation of risks
  - Reduction in the morale of the team
  - Need to manage a large amount of work within a short period
  - Reorganizing the budget

Impact of Scope Creep

- XIII. How do you think that a change in project scope affects the success of the construction project?
  - It helps to achieve a desired outcome.
  - It is beneficial for meeting the needs of the beneficiaries.
  - It helps in satisfying quality expectations
- XIV. Depending upon the situation, scope creep can be a good thing. What is your view on the statement?
  - Strongly Agree
  - Agree
  - Disagree
  - Strongly Disagree

If you ‘strongly agree’ or ‘agree’ with the above question, then proceed with question XV or move to question XVI.

- XV. How can one decide when to allow scope creep and when to prevent it?
  - It would be essential to evaluate the cost versus the benefit
  - It would be beneficial to harness the opportunities for improvement that expanding scope provides
  - Need to take pragmatic decisions, considering different factors
- XVI. What can be the best possible remedy for minimizing or controlling scope creep?
  - A proper understanding of the client’s vision by involving them in the earliest stages of the project
  - Correct understanding of the priorities of the stakeholders which would also include the process of defining the deliverables and having them approved by the stakeholders.
  - Work Breakdown Structure – dividing the entire project into phases