Leveraging Knowledge through Crowd-Sourcing for Enabling Business Solutions

Ray Titus

Professor of Marketing & Strategy, Alliance School of Business, Alliance University
ray.titus@alliance.edu.in

Abstract: This theoretical research work looks at the problem of knowledge being dispersed among the many in an economy. Such dispersed knowledge if leveraged as a unified body can effect solutions that have greater potency than those that keep out such possessors of knowledge. The paper proposes crowdsourcing as the answer to gathering information that can enable more potent knowledge applications. The focus of this theoretical paper revolves round the importance of crowdsourcing as a gatherer and applier of knowledge, and the methodology that can be used to undertake the same.
Keywords: Knowledge, Crowdsourcing, Information, Aggregation.

Introduction

That information is power is a well-known fact. The problem when it comes to information is not about accepting its importance, but it is about how does an institution or an individual gather the optimal amount of information so as to make the right decision. This optimal information or relevant information is unstructured and dispersed in the market place. The information relevant to a decision may not be easily available to a decision maker because of its dispersed nature. The process or the act of collecting information so as to be able to build a knowledge pool that aids in decision-making is known as information aggregation. The act is known as information aggregation. The system that allows for such an act to be carried out or facilitates the availability of near total relevant information can be referred to as information aggregating mechanism. Again, there are added dilemmas to information aggregation. For example, if one were to want to use information one may have to be able to combine information that is empirical and objective with information that is subjective and even abstract. Such a combination isn't easy at all. In addition, the dispersion of information can also be geographical as much as it could be functional within an organization. Collecting all the information that is relevant to a decision isn't easy because of such dispersed characteristic. Again it is also important to admit that the knowledge of the availability of information doesn't necessarily translate into that information being made open to a decision maker, i.e. it could be in the best interest of an individual who possesses critical information to not give it, thus putting a wrench in the work of decision-making.

Consider a real time scenario in the market place. Marketing organizations focus on creating and delivering value to consumers via products and services. Yet deciphering what is value to consumers requires for information that helps in the understanding of what 'value' is. This information as we have admitted to is dispersed and is available in an unstructured manner. For example, what consumers may want can be elicited from consumers themselves. Yet consumers themselves may not be able to tell a marketer what value is from a psychological perspective. In addition, value as created on the basis of what consumers say may not necessarily translate into a sale because consumers may be privy to

information that there is greater value being provided by a competitor. Thus in the process of creating value for consumers it is important that information about the competitors' value creation is also available. Again, what is value to consumers cannot be understood in a static sense, meaning the change in environment could influence choice of consumers. For example, the emergence of a new business technology could radically alter the way products and services get created, or could radically alter products and services themselves.

Literature Review

Bonasia (2010) has opined that the concept of Crowdsourcing brings innovative methods of selling products and services by encouraging group intelligence. Crowdsourcing is considered as team contribution method to find out solutions to problems. Mannes. E.A (2009) has found that the information provided by bigger groups is more accurate than of smaller groups. Also the advices given by groups are more reliable than individuals to update their values or viewpoints. Fleenor.J & John.W (2006) have argued that it is the group wisdom that shapes business and creates conducive work environment enhancing more employee involvement. Inputs shared by many are smarter than shared by few. Ray.R (2006) has proved that "prediction" markets are accurate in foreseeing different types of events like commodity prices, Price index, foreign exchange rates, inflation rates, stock prices, and many other macro environmental variables. Most of the times the accuracy of the figures is better those expert opinions.

Information Aggregation & Application

When Eric S Raymond wrote a treatise to the world of bazaar (Eric Raymond, 1997) and contrasted that with the world of cathedral, what he was essentially pointing to was the nature of information availability and transfer in the future. The future world of information will that like of a bazaar buzzing with activity. This will be flat world where information will widely be transmitted and exchanged in a many-to-many fashion. The toss-up will be between design that takes the top-down route or the bottom-up one. There's enough of evidence to show the bottom-up one will capitalize on what can be termed the wisdom of crowds, drawing form diverse competencies resulting in better products and services. Eric bases his treatise on the development of Linux as a competent and viable alternative to near monopoly operating system, Windows. This bazaar movement can be credited to the genius of Linus Torvalds who opened up the source code to millions of free-standing developers collaborating with no apparent financial interest to making a product better.

Whilst considering a flat world of information it's only pertinent to question whether dispersed information is relevant to an organization from the perspective of its strategic pursuits. If such information were relevant to strategy, again the question remained as to whether such information could be accessed from those that held them, and whether such people would be willing to part with 'critical' information. The concept of prediction markets is proposed as a solution to such problems. True prediction markets are in essence clustered small-scale electronics markets teeming with information and open to a decision maker who may want to capitalize on this information pool in effecting decisions. It has been shown that the collective wisdom of the markets populated by all those who hold relevant information results in a prediction that is more accurate, if not more than opinions postulated by a handful of experts. Take for example, the prediction incidence within an organization; the play of a prediction market within it works through the rapid aggregation of information dispersed within it. If the organization were to create an information flow structure that allows for employees to submit what they believe is relevant information, the outcome to the aggregation of this information would be far more

accurate that expert opinion. One of the reasons as to why expert opinion maybe be far from the mark is because of what is termed as ivory-tower decision making. Decision makers at the top of the hierarchy are at times shut out from information in the market place because of their distance from front-end employees hierarchically. But if an organization were to create a flexible structure that allows for quick information aggregation then it would be seen that tapping into the collective wisdom of its intellectual capital would result in far better decisions as compared to restricting decision making to the top of the hierarchy. Also it is a well-known fact that the silo-driven (functional) structure within an organization hinders the flow of information across functions. Again, hierarchies aren't restricted to organizations but also populate functions. This makes information aggregation even more difficult.

It must also be noted that information aggregation that taps into greater participation must not be seen as a call against expert opinion. Also, the wisdom of crowds can only work if certain criteria are satisfied. For a crowd to contribute to better decision making, it is necessary that it be diverse which in turn will ensure that diverse information is brought to the decision making table. The crowd structure also needs to be decentralized so as to escape the clutches of a dictatorial situation driven from the top. Crowds also must be able to summarize opinions to form a collective verdict. Crowds also must be populated by independent thinkers giving opinion without fear. A prediction market in effect operates not just on a single bet but from multiple continuous bets till the market closes. The operating loop that captures updated information via constant feedback is at the heart of a prediction loop's accuracy. It must be noted that prediction markets can be subject to cognitive biases that could influence what it predicts. For example a sense of optimism may see a prediction market throw up figures that liberal setting aside conservative numbers.

Understanding and accepting the inherent wisdom in crowds making predictions that tends to be accurate states only one part of its adoption. The other is its operationalization. How can one tap into mechanism that allows for information aggregation and subsequently capitalize on it? The systematic approach to information aggregation that aids decision making can be termed knowledge brokering. This particular mechanism has been adopted by business firms that have tapped into diverse information form firms in others industries to drive decisions in their own firms. In addition to being a mechanism for decision making, knowledge brokering also helps in an analogous capability, namely, tapping into new ideas by basing them already existing ideas. For example a certain process activity within a certain context can now be creatively redeployed in a completely new contest paving way for the practice of innovation based on what's already in existence. One of the fundamental assumptions in knowledge brokering is that industry or silo structures don't have to be seen as a hindrance in usage of practices within a context in another. Most contextual information may have characteristics that make it generic thus making their applicability wide and across industries.

The systematic approach to knowledge broking requires that these steps be followed so as to make the most of open-collaborative innovation:

1.   *Defining the problem at hand* – Analyzing the problem and breaking it into sub-parts would allow for diverse people from across industries and function to collaborate on what could be an innovative solution. It is to be noted that at a process level most activities across industries and business firms tend to be specific. Surely this means that every industry value chain throws up unique activities as well as those that are generic. Knowledge brokering would see intellectual capital collaborating form across industries with participants bringing with them their own unique knowledge form their industries that find application within the generic space. Take for example the customer service function. Across business

firms this activity is a necessity to ensure lasting loyalty towards a product. A particular firm, say one that operates in the product space may find a solution to its customer function problem form another company which may operate in the service space, hospitality for example.

Yet finding the contributions from other industries to be relevant may require the host company to break down the problem and allow for varied and diverse personnel form across companies to industries to work on them.

2.   *Evaluating broking communities and identifying experts* – Once the problem has been broken into sub parts and specificity and generality identified, it is important for the host firm to identify the knowledge community that will now work on the problem. This identification is important as it goes to the heart of the innovative solution that gets proposed. The trick here is to cat the net wide to rope in the right knowledge brokers. It is recommended the host firm look across at least five industries, and also go to firms where similar issues have been experiences. 'Similar' her doesn't mean the same, but means that it is in the same domain. For example, a problem of managing merchandising to pilot greater visibility for an FMCG manufacturer brand can have different product category company personnel participating with relevant information. Such personnel could come from product categories such as apparel, electronic, durables, food and grocery and others. It must also be noted that sources of information can also be tapped form outside conventional business formats too.

All possible channel including internal ones need to be tapped to get in touch with the sources and they must be contacted for their participation.

3.   *Engaging with brokers and tapping into ideas* – The task of getting the brokers on board may be over. But there still remains the task of engagement to extract ideas, and then acting on them.

The recommended method here is to use a direct yet not face to face communication mode to tap into information. Also it is important that the team that listens to the information being shared does so on a direct basis, than have the information narrated to them from a secondary source. It is important that during the time of information dissemination, emphasis be given on listening correctly and identifying tacit information that may not be articulated actively. Also its important that the listeners be as many relevant people as possible so as to capture every possible information piece that may lead to an innovative solution to the problem at hand. While listening it's important that value judgements be set aside so as to make the best of what is being shared. Once the listening is over the probing must begin via questions being asked by the listeners to the brokers. There's always the possibility of the 'aha' moments when the listeners break into something that's unique and innovative using what they brokered.

4.   *Incorporation of new ideas to craft betterments* – The last stage is to be able to take the learning from the engagement session into a business process so as to effect betterments. It must be kept in mind that there won't always be radical solutions that result from the engagement session. Betterments can be incremental thus possibly improving on an existing process, which may then result in greater efficiencies in the system. It's also important that the incorporation of the better processes be with a buy in form all the process owners. This may require that the changed format to the process be implemented in a phased manner with ample demonstration of what it's bettered.

Conclusion

Thus it can be seen there's much to be gained from a process that's built on what is open innovation. Such open innovations are a result of information aggregation that taps into the collective wisdom of crowds. As business model there's been adoption of the same. The act of crowd-sourcing has been used by companies such a Cambrian house in crafting commercial products. However it won't be easy going for the concept when as a mainstream widespread application across firms, across industries. How it will get there is what will be closely watched in the future.

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