

Incremental Innovation Effects on Consumer Perception

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Accepted on January 26, 2016

Abstract: Until today, research is focusing mostly on management and marketing of radical innovations. This seems surprising as companies nowadays mostly compete with incremental innovations (e.g. successive generations of mobile devices, notebooks, etc.) and a crucial portion of the company's revenues and yields are due to product generation sales. To extend the knowledge of incremental innovations, the purpose of this research was to explore in detail about the consumer perception of incremental innovations. The main question to answer was, if consumers have positive or negative feelings regarding incremental innovations. The research also examined if the perception of the incremental innovations will affect the market success of a product or not. This research explored secondary, if consumers always expect radical innovations from manufacturers. The results of this research indicated, that it can be assumed, that consumers have a positive perception regarding incremental innovations. It could not be shown with scientific proof that if the perception of the incremental innovation tend to be perceived as radical innovative, the perception will influence the market success of a product, but with the used non scientific approach, it could be shown that it can be assumed. The other contribution of this study was to gain knowledge if consumer always expects from producers radical innovations. The results of this research indicates, that consumer not

always expect radical innovations from manufacturer. Incremental innovations are also accepted from consumers regarding the product development. It can be assumed that incremental and radical innovations are ranking on the same level of positive perception from the consumer.

Keywords: incremental innovations, radical innovations, consumer perception

1. Introduction

Innovations represent an important factor for the economy; they are leading to economic growth and prosperity. For companies innovations are opportunities for increased sales and yields, and for consumers innovations help among others to make the life easier in various areas of the life. In the following table 1.1 some sample innovations and how they have effected our life.

Innovations	Benefit	Impact
Telephone	Direct exchange of information in real-time	Information can be exchanged immediately and that made doing business more efficient
Radio	Possibility to spread information over far distances to a mass of people at the same time	Equalizing of information asymmetries
Automobile	To transport people and goods over long distances	People and goods can be brought faster and more efficient to individual places

Table 1.1: Innovations benefits and impacts, source: own

In accordance with Everett M. Rogers (2003), an innovation can be an idea, a practice, or a new object that is perceived as new by an individual. Nowadays we classify innovations in different classes from radical innovations to incremental innovations. In which radical innovations can have major impacts on the economy, single industry sectors, and on the consumer's habits.

While the impacts of single incremental innovations are less disruptive, but can lead in sum over a certain period of time also to bigger changes, also called breakthrough innovations. To illustrate the differences between radical and incremental innovations, two examples are given. See table 1.2: Radical vs. incremental innovations impacts.

Type	Innovation	Impact
Radical	Digital photography	The dawn of the digital photography was also the beginning of tremendous changes in the photo developer industry, as the consumer tend now to store the photos digital
Incremental	Color Television	The invention of the television itself was a radical innovation, but to add the possibility to watch the TV program in color was just one step in the development of televisions and had no mayor impacts on the industry or the habits of the consumer

Table 1.2: Radical vs. incremental innovations impacts, source: own

Because of the huge impacts of radical innovations on the economy, industries, and the habits of the people, they offer possibilities for high revenues and profits, and that make them alluring for companies and individuals. But of course, not every innovation will be successful in the market. Moreover, several studies about innovation have outlined, that innovation projects have a higher than normal risk, resulting in increasing failure rates. Approximately 35 to 45% of all new products still fail (Boulding, Morgan, and Staeling, 1997). This is still valid as we can see in the Product Development Benchmarking Study from December 2010 accomplished by the Product Development Institute and APQC. As we could see that innovation is related to risk and the risk is rising with the grade of innovation, lower risk for incremental innovations and higher risk for radical innovations, companies or individuals shouldn't only focus on radical innovations.

Radical innovations involve a high allocation of resources like manpower and capital that increase the risk of going bankrupt in the case of failure. Incremental innovations otherwise not allocate generally as many resources as radical innovations, what makes them less risky and more frequent, but related to the lower level of risk, less profitable. The well known Professor Theodore Levitt from the Harvard Business School stated that, "imitation is not only more abundant than innovation, but actually a much more prevalent road to business growth and profits" (Levitt, 1966:33). Also the scholars Kleinschmidt and Cooper stated that incremental innovations are important for the firms overall profitability (Kleinschmidt and Cooper, 1991).

Surprisingly most of the research is focused on the management and marketing of radical innovations, but where most of the companies today compete with incremental innovations and a big share of the company's turnover are due to product generation sales, e.g. Apple's iPhone or Samsung's Galaxy Phones. Product development is a complex and multifaceted part in a company's business activity.

The bandwidth ranges from small incremental innovations for an existing product over to radical innovations - a new product. It is questionable if whether one "New Product Development" theory can be generalized for all kind of new product development projects (Dewar and Dutton, 1986). And since the development and management of radical innovations has been studied more than the development of incremental innovations (Cooper, 1994), the research of incremental innovations was the main focus of this research.

The consumer perception against incremental innovations can be different, from positive to negative, which could have an effect on the success of the products market performance. If the consumer perception against the incremental innovation is not positive and strong enough,

it is likely that the new product will fail in the market and the brand image will suffer. This research will find out if there is a relationship between the consumer perception and the market success of incremental improved products. This research investigated from the point of view of the consumer side. The following questions determine the areas of the investigation:

Consumer side:

- How consumers do perceive incremental innovations in Thailand?
 - Commonly
 - Regarding to the incremental product developments of Apple's iPhone
- Do consumers always expect radical innovations in Thailand from producers?

The research provides insights about the perception of consumers in Thailand regarding incremental product innovations. That gained knowledge will help producers in the field of product development to create a decision matrix for example, if to move forward on with an incremental product innovation or not. This could help to prevent producers for financial damages and or negative impacts on their image. The scholars Gold, Rosseger, and Boylan, Jr. (1980) highlighted that innovation probably make the most of gains in real economic growth and standards of living.

The research also provides overall insights about the expectation of consumers regarding innovation. This will help to get a better differentiation between the different areas of innovation namely incremental innovation and radical innovation and should encourage the demand for further research in the field of incremental innovation.

2. Literature Review

Joseph Alois Schumpeter (1934) was one of the first scholars who conducted research regarding the role of innovations in the economy. He believed that innovation is an essential driver of competitiveness and economic dynamics. In his theory of economic development he argued that booms and recessions are inevitable and cannot be avoided or corrected without thwarting innovation to gain new wealth. This means, innovations are essential for the economic to growth.

Kirzner (1997) describes in his theory of entrepreneurship that incremental innovations gives the entrepreneur the opportunity to achieve higher profits by using the same base product in a new arrangement. Everett M. Rogers (2003) researched in the field of perception of innovations. He created the diffusion of innovations theory. This theory describes how an innovation is adopted through consumers over the time. In this theory Rogers already pointed out that the consumer

perception of an innovation plays an important role; see the persuasion stage in the diffusion of innovations theory. Kleinschmidt and Cooper (1991) made researches in the field of the impact of the innovativeness on the market success. They could show that there is a non-linear relationship; both high and low innovative products had market success, U-shaped function. This highlights, that incremental innovations are as important as radical innovations. And as the risk of the development of incremental innovations is lower than for radical innovations, firms and scholars should spend more attention to incremental innovations.

Rogers and Shoemaker (1971) made researches in the field of consumer perception. They found out in a figurative sense that it matters a little, when human behavior is concerned, a product is in fact new or not as measured by the lapse of time since its first use or discovery. They point out, that "it is the perceived or subjective newness of the idea for the individual that determines his/her reaction to it. If the idea seems new to the individual, it is an innovation".

Boer and During (2001) describe the requirements for successful innovation as following:

- Balanced attention to each part of the innovation process. This balance depends on the type of innovation involved and my need to adjust in the course of the process.
- People involved to the innovation process should meet the characteristics of it and the organizational arrangements as well to perform support and manage the innovation process.
- Perceived characteristics of the innovation.
- The appreciation of the characteristics of the innovation process itself.
- The proportion to which appropriate staff can be found to implement the process.
- The extent to which appropriate organizational resources are available.

Rogers (1983) identified five innovation characteristics: Relative advantage /Complexity/Compatibility /Trialability; Divisibility/Observability. Researches on this five characteristics by Boer and during (2001) showed, that the perceived value of innovation for product innovation and process innovation was higher than the actual value after the innovation was completed. This result of the researches supports the need of this research as the knowledge about consumer perception regarding incremental innovations can help to set the right perceived value for the innovation a company is working on.

Sandeep Kishore (2013) describes in this article for wired.com which potential incremental innovation can reach nowadays on the example of the Apple iPhone. The iPhone was an incremental innovation of existing smartphones. Apple added a larger touchscreen and developed an application store where new applications for

the iPhone could be downloaded. Through incremental innovations, Apple created a whole new ecosystem which made the iPhone the preferred medium for accessing the internet. The iPhone became a central part for many people. The iPhone created a market that will be worth approximately \$1.6 trillion by 2018 in the USA. In the article the author also points out, that until 2020 \$5 trillion of GDP will be based on incremental innovation.

Bedell-Avers et. al. (2008) pointed out, the important role of creativity and innovation in the implementation of cost reduction programs. Choo and Bontis (2002) noted that while Toyota engages in annual incremental innovation the largest boosts in cost reduction coincide with major product developments. Their strategy is to take multiple individual products and fuse them together into an integrated whole. This has worked wonders for them and indeed is a form of incremental innovation.

Robert Plant (2013) explained in his article for the Wall Street Journal how incremental innovations can help to sustain the companies revenues by following a double strategy, do incremental innovations, and also try to achieve radical innovations. The incremental innovations will bridge the time until a new radical innovations is ready for the market launch. P&G's Tide Pod is a good example, the product was launched in 2012 and now P&G has time to make incremental innovations to it, like adding new ingredients, and at the same time it can develop a new product.

Also Maxwell (2009) points out that incremental innovations are needed to extend the products life cycle until the next radical innovation is ready for the market launch. Bartels and Reinders (2011) note that most failures of innovations are due to a lack of understanding of consumer expectations. The difference in perception of the novelty of a product between businesses and consumers is a significant risk in the adoption of innovations. According Ziamou and Ratneshwar (2002) the question of novelty in innovations is seen from the marketer point of view and not the consumer, because the innovations considered as new products are designed by marketers, and then offered to consumers.

Hetet and Moutot (2014) concluded in their dissertation that perceived novelty represents a significant influence on innovations and developed a global model. They also noted that further study of the perception of innovations at all is needed.

3. Data and Methodology

The type of research is a causal research on a quantitative base. With this research the stated hypothesizes is been proven with the correlation coefficient Pearson's r (hypothesis one) and the Pearson's chi-square test (hypothesis two) if they are more likely or not. The population for the hypothesizes one and two are set by the assumed units in use of the Apple iPhone in Thailand. Probability sampling (simple random sampling) was

chosen as sampling technique of choice for the hypothesizes one and two. As the result of the research of hypothesizes one and two is in proportions, the following formula is used to determine the sample size with a confidence level of 95%:

$$n = \frac{Z_{c.l.}^2 pq}{E^2}$$

Where: n = number of items in sample, $Z_{c.l.}^2$ = square of the confidence level in standard error units, p = estimated

proportion of successes , $q = 1 - p$; or estimated proportion of failures, E^2 = square of the maximum allowance for error between the true proportion and the sample proportion, or $Z_{c.l.} Sp$ squared

The sample for the research of the hypothesises one and two should comprise 323 people. Regarding to truehits.net from 07. March 2015, 4,949,409 iPhones (population for hypothesises one and two) where in use in Thailand. Lin Lan (1976) recommends for a research population over 500,000 people a sample size of 322 people for a confidence level of 95%.

Sample size calculation parameters:	
$Z_{c.l.}^2$	= 95% (1.96)
p	= 70% (0.7)
q	= 30% (0.3)
E ²	= 5% (0.05)
Calculated sample size:	
n	= 322.69 ~ 323

Instrumentation

To capture the answers, one standardized questionnaire with fixed alternative questions was designed and used. The questionnaire measured the consumer perceptions for:

- The relationship between the consumer perceptions of an incremental innovation of a product.

- If consumer perception are higher positive for radical innovations than incremental innovations.

Procedure of the Data Collection

The data for the questionnaire was collected through random interviews (simple random sampling) at several locations throughout central Bangkok and an internet survey. To enhance the range of the internet survey, social media platforms were used.

Survey Parameters: Date, Place, and Responses

Date	Place	Responses
17.10. - 08.11.2015	Internet Survey: http://cengagebrm.az1.qualtrics.com/SE/?SID=SV_dp5DKGEcSNMdHA9	150
18.10.2015	Rajamangala University of Technology Thanyaburi, Pathumthani	70
21.10.2015	Lad Phrao Road Soi 81	6
31.10.2015	Imperial World Lad Phrao, Lad Phrao Road	30
01.11.2015	Imperial World Lad Phrao, Lad Phrao Road	54
03.11.2015	Rajamangala University of Technology Thanyaburi, Pathumthani	100
	Total:	410

Table 3.1: Survey parameters: Date, place, and responses, source: own

Demographic Data

As this research is basic research, the consumers are considered as one homogeneous group. The differentiation between sex, age, income, and location within Thailand and their effects on the consumer perception should be examined in future researches.

Limitation

As the Apple Inc. only provide detailed statistical data's referring the sales in units world wide and not for each country, the gained data from the sample are correlated to the sales in units world wide under the assumption, that the distribution of the total sales in units will mirror the

distribution of the sales in units for each country approximately in proportion for the non scientific approach of this thesis.

Statistical Methods

The following statistical methods are used to evaluate the gathered data from the field survey.

Mode: The mode is the value that mostly appears in the collection of numbers.

$$Mo = x(h_{max})$$

Where: Mo = Mode, x = Collected numbers, h_{max}= Number that mostly appears

Median: The median is the value that is halfway into the set.

$$Me = x_{\frac{n+1}{2}} \text{ or } Me = \frac{X_{\frac{n+1}{2}} + X_{\frac{n+1}{2}+1}}{2}$$

Where: Me = Median, x = Collected numbers, n = Total numbers of observations

Skewness: The skewness indicates how symmetrical the distribution of the collection of numbers is.

$$g = \frac{n \sum_{i=1}^n (X_i - \bar{X})^3}{(n-1)(n-2)S^3}$$

Where: \bar{X} = Mean, X = Collected numbers, n = Number of collected numbers, S = Standard deviation, γ = Skewness

Kurtosis: The kurtosis indicates the peakiness of the distribution of the collection of numbers.

$$Kurt[Y] = \frac{n(n+1) \sum_{i=1}^n (X_i - \bar{X})^4}{(n-1)(n-2)(n-3)S^4} - \frac{3(n-1)^2}{(n-2)(n-3)}$$

Where: \bar{X} = Mean, X = Collected numbers, n = Number of collected numbers, S = Standard deviation, Kurt [Y] = Kurtosis

Correlation Coefficient (Pearson's r): The correlation coefficient measures the association between two at-least interval variables.

$$r_{xy} = r_{yx} = \frac{\sum_{i=1}^n (X_i - \bar{X})(Y_i - \bar{Y})}{\sqrt{\sum_{i=1}^n (X_i - \bar{X})^2 \sum_{i=1}^n (Y_i - \bar{Y})^2}}$$

Where: \bar{X} = Mean variable 1, X = Collected numbers variable 1, \bar{Y} = Mean variable 2, Y = Collected numbers variable 2, $r_{xy}=r_{yx}$ = Correlation coefficient

Pearson's Chi-Square Test: The Pearson's chi-squared test (χ^2) is a statistical test applied to sets of categorical data to evaluate how likely it is that any observed difference between the sets arose by chance.

$$C^2 = \sum_{i=1}^n \frac{(O_i - E_i)^2}{E_i}$$

Where: χ^2 = Pearson's cumulative test statistic, O_i = The number of observations of type I, E_i = The expected (theoretical) number, n = The number of cells in the table

4. Research Results

For the study of the research questions two hypotheses were formulated.

Hypothesises Evaluation

Hypothesis 1: There is a significant relationship between the consumer perception of an incremental improved product regarding the grade of innovation and the market success of the product.

It could be seen that there is a weak negative correlation between the radical innovation perception and the ownership for the iPhone generations and weak positive correlation between the incremental innovation perception and the ownership for the iPhone generations. As the correlation is not meaningful, the hypothesis one can not be confirmed, but it can be assumed that the hypothesis one is true, when the correlation with the sales in unit worldwide was done, see further details in the complete thesis. But further research is necessary to confirm this assumption with a scientific reliable approach.

Hypothesis 2: Radical innovations are preferred than incremental innovations.

To test the hypothesis two, the Chi-Square test is used. For this, single questions of the survey are combined to the "Radical against incremental consumer perception" and the statistical mode of the questions is compared with the research expectations against radical innovations. The higher the value of the Chi-Square test, the less likely it is that the expected and observed values are the same. Expected was that radical innovations are preferred than incremental innovations. The Chi-Square test shows, that radical innovations are not preferred than incremental innovations with a significance level of >99% for the research population. Hypothesis two is to reject.

In the following the single research questions, field survey results, and statistical results:

- Q1 = Do you distinguish between a radical innovation and an incremental innovation?
- Q2 = Do you think radical innovations are better than incremental innovations?
- Q3 = Do you think incremental innovations are a good way to keep a product up to date?
- Q4 = Do you always expect from your favourite brands / manufacturers new innovative products or are you also satisfied with improved products?
- Q5 = How do you think about incremental product improvements?
- Q6 = Do you think complete new products are better than improved products?
- Q7 = Do you always buy the latest version of a product?
- Q8 = How often a product should be complete improved?
- Q9 = Which kind(s) of innovations should an innovative company do?

- Q10 = Do you own an iPhone now or do you have owned an iPhone in the past?
- Q11 = Which iPhone did you owned and which do you have now?
- Q12.1 = How do you perceive the product development from the iPhone? All iPhones generations were radical new?
- Q12.2 = How do you perceive the product development from the iPhone? All iPhones generations after the first generation were incremental innovations?
- Q12.3 = How do you perceive the product development from the iPhone? A mix of both, incremental and radical innovations?
- Q13 = How do you perceive the grade of innovation for each version of the iPhone?
- Q14 = How often do you usually buy a new iPhone?
- Q15 = would you say that Apple Inc. is an innovative company?

#		Q1		Q2		Q3		Q6	
		T.R.	%	T.R.	%	T.R.	%	T.R.	%
1	Strongly Disagree	8	2.198	13	3.652	18	5.085	39	11.143
2	Disagree	16	4.396	131	36.798	99	27.966	148	42.286
3	Neither Agree nor Disagree	116	31.868	74	20.787	62	17.514	96	27.429
4	Agree	190	52.198	119	33.427	151	42.655	53	15.143
5	Strongly Agree	34	9.341	19	5.337	24	6.780	14	4.000
	Total	364	100	356	100	354	100	350	100

Table 4.1: Results research questions Q1 / Q2 / Q3 / Q6, source: own

#		Q12.1		Q12.2		Q12.3		Q15	
		T.R.	%	T.R.	%	T.R.	%	T.R.	%
1	Strongly Disagree	21	7.317	6	2.143	7	2.545	8	2.676
2	Disagree	96	33.449	32	11.429	21	7.636	16	5.351
3	Neither Agree nor Disagree	70	24.390	45	16.071	83	30.182	41	13.712
4	Agree	85	29.617	169	60.357	138	50.182	167	55.853
5	Strongly Agree	15	5.226	28	10.000	26	9.455	67	22.408
	Total	287	100	280	100	275	100	299	100

Table 4.2: Results research questions Q12.1 / Q12.2 / Q12.3 / Q15, source: own

#	Q4	T.R.	%
1	I always expect new innovative products	65	18.414
2	I am also satisfied with improved products	79	22.380
3	A mix of both	209	59.207
	Total:	353	100

Table 4.3: Results research question Q4, source: own

#	Q5	T.R.	%
1	Product improvements are good, as long as I get a much better product than before	285	80.737
2	I always wait until a new product comes on the market	55	15.581
3	I not care about it	13	3.683
	Total:	353	100

Table 4.4: Results research question Q5, source: own

#	Q7	T.R.	%
1	Yes	108	30.857
2	No	242	69.143
	Total:	350	100

Table 4.5: Results research question Q7, source: own

#	Q8	T.R.	%
1	Every 6 month	116	33.143
2	One time per year	180	51.429
3	Every two years	42	12.000
4	Every three years	10	2.857
5	Every four years	2	0.571
	Total:	350	100

Table 4.6: Results research question Q8, source: own

#	Q9	T.R.	%
1	Only radical innovations	26	7.450
2	Only incremental innovations	42	12.034
3	A mix of both, incremental and radical innovations	277	79.370
4	Neither nor	4	1.146
	Total:	349	100

Table 4.7: Results research question Q9, source: own

#	Q10	T.R.	%
1	Yes	208	60.116
2	No	97	28.035
3	In the past	41	11.850
	Total:	346	100

Table 4.8: Results research question Q10, source: own

#		Q11		Q13	
		T.R.	%	Radical Innovative Responses	Incremental Innovative Responses
1	iPhone 06/2007	14	3.263	104	156
2	iPhone 3G 07/2008	23	5.361	71	187
3	iPhone 3GS 06/2009	26	6.061	37	223
4	iPhone 4 06/2010	61	14.219	95	171
5	iPhone 4S 10/2011	100	23.310	53	210
6	iPhone 5 09/2012	78	18.182	92	173
7	iPhone 5C, 5S 09/2013	71	16.550	71	191
8	iPhone 6/Plus 09/2014	46	10.723	128	148
9	iPhone 6S/Plus 09/2015	10	2.331	108	159
	Total:	429	100		

Table 4.9: Results research questions Q11 / Q13, source: own

#	Q14	T.R.	%
1	Every 6 month	1	0.358
2	One time per year	17	6.093
3	Every two years	51	18.280
4	Every three years	33	11.828
5	Every four years	13	4.659
6	Every five years	10	3.584
7	Uncertain	154	55.197
	Total:	279	100

Table 4.10: Results research question Q14, source: own

#	Min Value	Max Value	Mode	Median	Skewness	Kurtosis	Total Responses
Q1	1	5	4	4	-0.753	1.247	364
Q2	1	5	2	3	0.093	-1.100	356
Q3	1	5	4	3	-0.283	-1.003	354
Q4	1	3	3	3	-0.857	-0.837	353
Q5	1	3	1	1	2.131	3.750	353
Q6	1	5	2	2	0.478	-0.305	350
Q7	1	2	2	2	-0.832	-1.315	350

Q8	1	5	2	2	0.912	1.321	350
Q9	1	4	3	3	-1.865	2.777	349
Q10	1	3	1	1	0.989	-0.324	346
Q12.1	1	5	2	3	0.055	-0.933	287
Q12.2	1	5	4	4	-0.976	0.701	280
Q12.3	1	5	4	4	-0.715	0.695	275
Q14	1	7	7	7	-0.602	-1.320	279
Q15	1	5	4	4	-1.139	1.676	299

Table 4.11: Statistical evaluation, source: own

	Owned iPhones (Research Sample)	Radical Perception	Innovative Perception	Incremental Perception	Innovative Perception
iPhone 06/2007	14	104		156	
iPhone 3G 07/2008	23	71		187	
iPhone 3GS 06/2009	26	37		223	
iPhone 4 06/2010	61	95		171	
iPhone 4S 10/2011	100	53		210	
iPhone 5 09/2012	78	92		173	
iPhone 5C, 5S 09/2013	71	71		191	
iPhone 6/Plus 09/2014	46	128		148	
iPhone 6S/Plus 09/2015	10	108		159	
	Correlation to Owned iPhones:	-0.254		0.320	

Table 4.12: Correlation, source: own

Radical against Incremental Innovation Consumer Perception		
	Question No.	Mode
Ranking perception +/-	Q2	2
	Q3	4
	Q6	2
Expectations	Q4	3
	Q5	1
Innovation expectations	Q9	3

Table 4.13: Classification of research questions, source: own

Chi-Square Test: Radical against Incremental Innovation Consumer Perception					
	Question No.	O _i	E _i	(O _i -E _i)	(O _i -E _i) ² /E _i
Ranking perception +/-	Q2	2	5	-3	1.8
	Q3	4	1	3	9
	Q6	2	5	-3	1.8
Expectations	Q4	3	1	2	4
	Q5	1	2	-1	0.5
Innovation expectations	Q9	3	1	2	4
					21.1

Table 4.14: Chi-Square Test, source: own

5. Discussion and Conclusions

The contribution of this research was to gain knowledge about the perception of incremental innovations, if consumers have positive feelings or negative feelings regarding them. With this research it could be shown, that it can be assumed that consumer have positive feelings regarding incremental innovations, see hypothesis two. The researches in the field of perception of innovation from Everett M. Rogers (2003) showed that the perception of the innovations plays a crucial role in the persuasion stage.

It could not be shown with a scientific approach, that if the perception of the incremental innovation tends to be perceived as radical innovative, the perception will influence the market success of a product, see hypothesis 1. This outcome of the research supports the studies from Kleinschmidt and Cooper (1991) that both high and low innovative products had market success. But the question here is how the consumer perceived the low innovative products, as incremental or as radical? As it could be shown with a non scientific approach that it can be assumed that when an incremental innovation (low

innovative) is perceived more as a radical innovation (high innovative) it will influence the market success of it, further research is necessary to obtain scientific prove that the innovation perception will influence the market success of a product.

The other contribution of this research was to gain knowledge if consumer always expects from producers radical innovations. With this study it could be shown, that consumer not always expects radical innovations. Incremental innovations are also accepted from consumer regarding the product development. This outcome of the research is supported by the studies from Kleinschmidt and Cooper (1991), the market success of high and low innovative products, as both high and low innovative products had market success.

Influences of this Research on the Product Development

As it can be assumed, in a not scientific approach, that the perception of the incremental innovations have an influence on the market success of an incremental improved product, the perception of the incremental improved product should be measured before market launch, to minimize the risk of a failure of the incremental improved product in the market. It would be useful to set individual perception benchmarks for each kind of product based on data from the past, but further research is necessary to get scientific reliable proof.

Influences of this Research on the Innovation Research

Incremental innovation plays in the actual research of innovations a little role, as radical innovations promise higher yields for the economy at all and for the company as single economy unit. But with this research it could be shown, that incremental innovations are perceived from the consumer on the same level as radical innovations. The budget for radical innovation researches are generated normally from the current product range yields of a company. But if the current product range is not up to date any more, or improvements are not accepted from the consumers, the yields will decline and the budget for radical innovations will decrease. It follows ultimately that greater attention should be paid to incremental innovations in the area of research.

Influences of this Research on Scholars in the Education Sector

With the outcomes of this research, scholars should give incremental innovations a higher attention and should encourage further researches from the students.

6. References

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