

| Group: | B |
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| Group Leader: | Gabriel Aaron S Sta. Maria |
| Group Members | Guia Alonso <br> Joselyn Mojica <br> Maureen Tauro <br> Anfernee Coronado |
| Course and Section: | BSBA - Marketing 2A |
| Date of Submission: | April 6, 2016 |
| Date of <br> Presentation: | April 8, 2016 |
| Professor: | Mr. Migo M. Mendoza |
| Grade: |  |


| Company Name: | Philippine Investment Funds Association |
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| Company Description: | History of the Investment Company Association of the <br> Philippines (ICAP) |
|  | In 1995, the ADB, with the support of the AIM, held a regional <br> seminar to further develop the awareness on mutual funds in the <br> Philippines . In the same year, the Investment Company <br> Association of the Philippines (ICAP) was organized by five <br> member funds. ICAP's conceptualization had very noble <br> intentions. The association has positioned itself in the <br> mainstream of the Philippine mutual fund industry with the <br> prime objective of ensuring its success. Behind it were |
| experienced, well known personalitits: Mr. Arthur B. Sokolow, |  |
| identified as the perennial mutual fund player, and Mr. Roberto |  |
| Lorayes, previous Chairman of the Philippine Stock Exchange. |  |
| It did not take long for government regulators and the private |  |
| sector to recognize the ICAP as the association of Philippine |  |
| investment companies. |  |


| CEO | Gabriel Aaron S Sta. Maria |
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## Client's Profile:

| Client Name: | Naz Abraham Simundo |
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| Client Description: | A fish vendor in the antipolo public market with 2 <br> children and a wife |
| Address: | Brgy san isidro Antipolo |
| Birth date: | April 17 1983 |
| Birth Place | Antipolo |

## Jackpot Millianare

## (A Final Requirement in BMATH2: Mathematics of Investment)

## 7. Statement of the Prollem

A man who recently won the jackpot prize in a lottery amounting to P120,850,090.00. There will be a $10 \%$ tax deduction, and then he is planning to invest $30 \%$ of the remaining into a certain bank. Bank $X$ is offering $10 \%$ compounded annually in 10 years. Bank Y offers 20\% compounded monthly in 5 years, and Bank Z offers is $15 \%$ compounded quarterly in 7 years. What is the best option you could provide for this type client? How much will he gain in each of the offers? How much do you think will he receive every payment period in each of the offers?

## 72. Oljectives

This Business report aims to:

* Provide the best offer to the man where in he will gain more profit when
investing his money; and
* Know which bank will give him more profit?


## 797. Wethodology

## 1. Client's Concerns

A. Client would like to know what bank will give him more profit For his money

## 2. Resolutions

## a. Definition of Payment Scheme

It is given that the money that will be invested is only partial of the original lottery amount, thus the client wants to know which bank will give him more profit. After reviewing each of the bank offers we strongly recommend to choose the offer that will give more profit to the investor Finding the compound amount and compound interest will let us know which bank will give the man more profit?

## b. Computation

A man who recently won the jackpot prize in a lottery amounting to
P120,850,090,00. There will be a $10 \%$ tax deduction, and then he is planning to invest $30 \%$ of the remaining into a certain bank.
$P=P 120,850,090.00$

Tax deduction=10\%

Invested money= 30\%

P120,850,090.00 x . $10=$ P108,765,081- Value of the money with tax deducted

P108,765,081 x . $30=$ P32,629,524.3 - The money that will be invested

Case I:

Bank $X$ is offering $10 \%$ compounded annually in 10 years

| $P=P$ 32,629, 524.3 | $i=j / m$ | $n=t m$ |
| :--- | :--- | :--- |
| $j=10 \%=.10$ | $i=0.10 / 1$ | $n=(10)(1)$ |
| $m=1$ | $i=0.1$ | $n=10$ |
| $t=10$ |  |  |


| $\mathrm{i}=?(0.1)$ |  |
| ---: | :--- |
| $\mathrm{n}=?(10)$ |  |
| S | $=\mathrm{P}(1+\mathrm{i})^{\wedge} \mathrm{n}$ |
|  | $=32,629,524.3(1+0.1)^{\wedge} 10$ |
|  | $=32,629,524.3(1.1)^{\wedge} 10$ |
| $=32,629,524.3(2.59374246)$ |  |
| $\mathrm{S}=\mathrm{P} 84,622,582.63$ |  |
| $I=S-P$ |  |
| $I=P 84,632,582.63-P 32,629,524.3$ |  |
| $I=P 52,003,058.33$ |  |

Case II

Bank Y is offering 20\% compounded monthly in 5 years

| $P=P 32,629,524.3$ | $i=j / m$ | $n=t m$ |
| :--- | :--- | :--- |
| $j=20 \%$ | $i=0.20 / 12$ | $n=(5)(12)$ |
| $m=12$ | $i=0.016666666$ | $n=60$ |

$\mathrm{t}=5$
$\mathrm{i}=0.016666666$
$\mathrm{n}=60$
$\mathrm{~S}=\mathrm{P}(1+\mathrm{i})^{\wedge} \mathrm{n}$
$\mathrm{S}=32,629,524.3(1+0.016666666)$
$\mathrm{S}=32,629,524.3(1.016666666)$
$\mathrm{S}=32,629,524.3(2.695970033)$
$\mathrm{S}=87,968,219.71$
$\mathrm{I}=\mathrm{S}-\mathrm{P}$
$\mathrm{I}=87,968,219.71-32,629,524.3$
$\mathrm{I}=55,338,695.41$

| m=4 $\mathrm{i}=0.0375$ n ${ }^{\text {a }}$ |  |
| :---: | :---: |
| $\mathrm{t}=7$ |  |
| $i=0.0375$ |  |
| $\mathrm{n}=28$ |  |
| $S=P(1+i)^{\wedge} n$ |  |
| $S=32,629,524.3(1+0.0375)$ |  |
| $\mathrm{S}=32,629,524.3(1.0375)$ |  |
| $S=32,629,524.3(2.803283048)$ |  |
| $S=91,469,792.33$ |  |
| $\mathrm{I}=\mathrm{S}-\mathrm{P}$ |  |
| $\mathrm{I}=91,469,792.33-32,629,524.3=58,840,268.03$ |  |

## TV. Conclusion

We therefore conclude that each bank gave a good offer to Mr. Simundo for bank X in 10 years they will give P52,003,058.33 profit to Mr. Simundo, for Bank Y In 5 years P55,338,695.41 Profit and Bank Z in 7 Years P58, 840,268.03

## A. Bank X

Bank $X$ is offering $10 \%$ compounded annually in 10 years after that P84,622,582.63 will be the total money and the interest will be P52,003,038.33
B. Bank $Y$

Bank $Y$ is offering $20 \%$ compounded monthly in 5 years after that $\mathbf{P 8 7 , 9 6 8 , 2 1 9 . 7 1}$ will be the total money and the interest will be P55,338,695.41

## C. Bank Z

Bank $Z$ is offering $15 \%$ compounded quarterly in 7 years after that $\mathbf{P 9 1 , 4 6 9 , 7 9 2 . 3 3}$ will be the total money and the interest will be $\mathbf{P 5 8}, \mathbf{8 4 0}, \mathbf{2 6 8 . 0 3}$

| Bank name | Final Value | Interest |
| :---: | :---: | :---: |
| Bank $X$ | P84,622,582.63 | P52,003,058.33 |
| Bank Y | P87,968,219.71 | P55,338,695.41 |
| Bank Z | P91,469,792.33 | P58,840,268.03 |

## V. Recommendation

After thorough investigation, Our company strongly recommends these:

* We recommend that Mr. Simundo choose bank Y because they offered the shortest term for a high interest
* In addition to we highly recommend this to put the client's satisfaction among others
$\square$
* These are the possible gain from the banks 52,003,058.33 interest from Bank X, 55,338,695.41 from Bank $Y$, and 58,840,268.03 from Bank $Z$

